

# TA-F555ES II

TA-F555ES II

## SERVICE MANUAL

US Model  
AEP Model



### SPECIFICATIONS

#### AUDIO POWER SPECIFICATIONS POWER OUTPUT AND TOTAL HARMONIC DISTORTION:

With 6 ohm loads, both channels driven, from 20-20,000 Hz; rated 150 watts per channel minimum RMS power, with no more than 0.006% total harmonic distortion from 250 milliwatts to rated output.  
With 8 ohm loads, both channels driven, from 20-20,000 Hz; rated 120 watts per channel minimum RMS power, with no more than 0.004% total harmonic distortion from 250 milliwatts to rated output.

#### Amplifier

Continuous RMS power output  
(both channels driven simultaneously)

150 W + 150 W  
(6  $\Omega$ , 20 Hz - 20 kHz, THD 0.006%)  
120 W + 120 W  
(8  $\Omega$ , 20 Hz - 20 kHz, THD 0.004 %)

#### Power bandwidth (IHF)

10 Hz - 100 kHz (6  $\Omega$  or 8  $\Omega$ , THD 0.02 %)

#### Dynamic headroom (\*78 IHF)

1.5 dB (6  $\Omega$ )  
1.2 dB (8  $\Omega$ )

#### Total harmonic distortion

0.004 % (6  $\Omega$  at 10 W output)  
0.002 % (8  $\Omega$  at 10 W output)  
0.006 % (6  $\Omega$  at rated output)  
0.004 % (8  $\Omega$  at rated output)

#### Intermodulation (IM) distortion, 60 Hz : 7 kHz = 4 : 1

#### Damping factor

125 (8  $\Omega$ , 1 kHz)

#### Slew rate

125 V/ $\mu$ sec  
250 V/ $\mu$ sec  
(inside)

Dynamic range 120 dB (TUNER, CD, TAPE 1, 2, VIDEO 1, 2 (audio))  
Channel separation (at 1 kHz)  
80 dB (PHONO MC)  
95 dB (PHONO MM)  
100 dB (TUNER, CD, TAPE 1, 2, VIDEO 1, 2 (audio))  
Residual noise 28  $\mu$ V (network A)  
Frequency response RIAA equalization curve  $\pm$  0.2 dB (PHONO MM)  
2 Hz - 200 kHz  $+0$  dB  
 $-3$  dB  
2 Hz - 100 kHz  $+0$  dB (G-AEP model)  
 $-3$  dB (TUNER, CD, TAPE 1, 2, VIDEO 1, 2 (audio))

- Continued on page 2 -

#### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK  $\Delta$  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

INTEGRATED STEREO AMPLIFIER  
**SONY**

AUD

#### Input sensitivity/impedance

0.17 mV, 40  $\Omega$   
(PHONO MC, 3  $\Omega$ )  
0.17 mV, 100  $\Omega$   
(PHONO MC, 40  $\Omega$ )  
2.5 mV, 50 k $\Omega$   
(PHONO MM)  
150 mV, 50 k $\Omega$   
(TUNER, CD, TAPE 1, 2, VIDEO 1, 2 (audio))

#### Maximum input capability (1 kHz)

9 mV (PHONE MC)  
150 mV (PHONO MM)  
(1 kHz, THD 0.003 %)

#### S/N (network)

73 dB\*, 70 dB (A) (PHONO MC)  
83 dB\*, 87 dB (A) (PHONO MM)  
102 dB\*, 97 dB (A) (TUNER, CD, TAPE 1, 2, VIDEO 1, 2 (audio))

#### \*78 IHF

#### Output voltage impedance

150 mV, 1 k $\Omega$  (REC OUT 1, 2, VIDEO 1 (audio))  
25 mW (at 8  $\Omega$ )  
Accepts low and high impedance headphones. (HEADPHONES)  
Tone controls  $\pm$  8 dB (turnover freq. 300 Hz) (BASS, at 60 Hz)  
 $\pm$  8 dB (turnover freq. 5 kHz) (TREBLE, at 25 kHz)

#### BASS BOOST

+4 dB (at 50 Hz)

#### SUBSONIC filter

6 dB/octave attenuation below 15 Hz

#### Video

Input/output voltage 1 Vp-p

Input/output impedance

75  $\Omega$

#### General

#### System

Preamplifier section: low-noise IC NF type equalizer amplifier  
Power amplifier section: quasicomplementary SEPP OTL OCL power amplifier with all stages direct coupled

#### Power requirements

AEP model: 220 V ac, 50/60 Hz  
US model: 120 V ac, 60 Hz

#### Power consumption

AEP model: 310 W  
US model: 290 W

#### AC outlets

AEP model: 1 switched, 100 W max.  
US model: 2 switched, total 100 W max., 2 unswitched, total 100 W

#### Dimensions

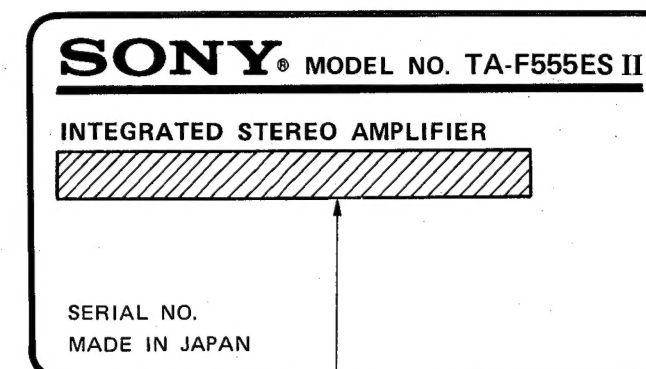
Approx. 430 x 135 x 425 mm (w/h/d)  
(17 x 5 $\frac{3}{8}$  x 16 $\frac{1}{2}$  inches)

#### Weight

including projecting parts and controls  
Approx. 15.1 kg (33 lbs 5 oz) net

### MODEL IDENTIFICATION

- Specification Label -



US model: AC 120V ~ 60Hz 290W

AEP model: AC 220V ~ 50/60Hz 310W



## SAFETY CHECK-OUT (US Model)

After correcting the original service problem, perform the following safety check before releasing the set to the customer:

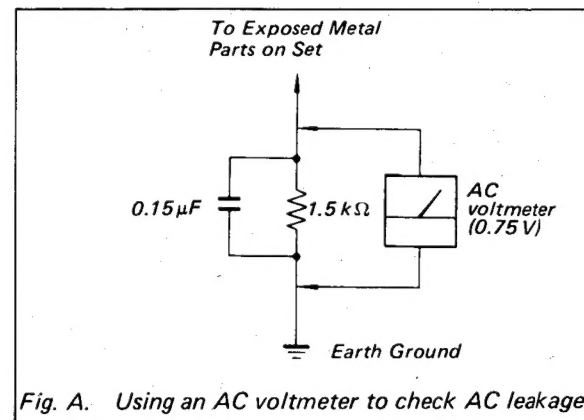
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

### LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.

3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)



## SECTION 1 OUTLINE

### 1-1. FEATURES

#### A.C.T. (AUDIO CURRENT TRANSFER) TECHNOLOGY

With A.C.T. technology, which reduces interference and noise as low as possible, the 4 signals of right and left channels of the pre-amp and power amp sections are separated, obtaining the best performance at the normal listening level. (In the TA-F555ESII, the exclusively developed audio super Hi-Fi IC is employed.)

#### SUPER LEGATO LINEAR POWER AMPLIFIER STAGE

The operation of the power amplifier stage is stable without any observable distortion up through the higher frequencies. Because of its very low switching distortion, the output waveform is smooth.

#### POWERFUL POWER SUPPLY

Powerful transformers of 250 VA and 350 VA are respectively used in the power supply sections of the TA-F444ESII and TA-F555ESII to obtain rich sound. In addition, use of the ES filter together with the newly developed large chemical capacitor eliminates the power interference.

#### SELECTED AUDIO PARTS

A large heatsink and high-rigidity chassis are used to prevent thermal modulation distortion and vibration distortion, respectively. LC-OFC (Linear Crystal Oxion-free Copper) leads are used for internal wiring and speaker output coil. In addition, other audio parts are selected by frequent sound monitoring.

#### VARIOUS VIDEO OPERATIONS

This amplifier is equipped with 2 pairs of video jacks (one pair for playback/recording and one for playback) to allow you to perform various video operations.

#### SPEAKER PROTECTION CIRCUIT

When a short circuit or DC component is detected at the speaker outputs, the power/standby indicator blinks in red and the built-in speaker protection circuit functions to protect the speakers.

#### MUTING CIRCUIT

When the power is supplied, the power/standby indicator blinks in red and the muting circuit functions until the amplifier operation becomes stable.

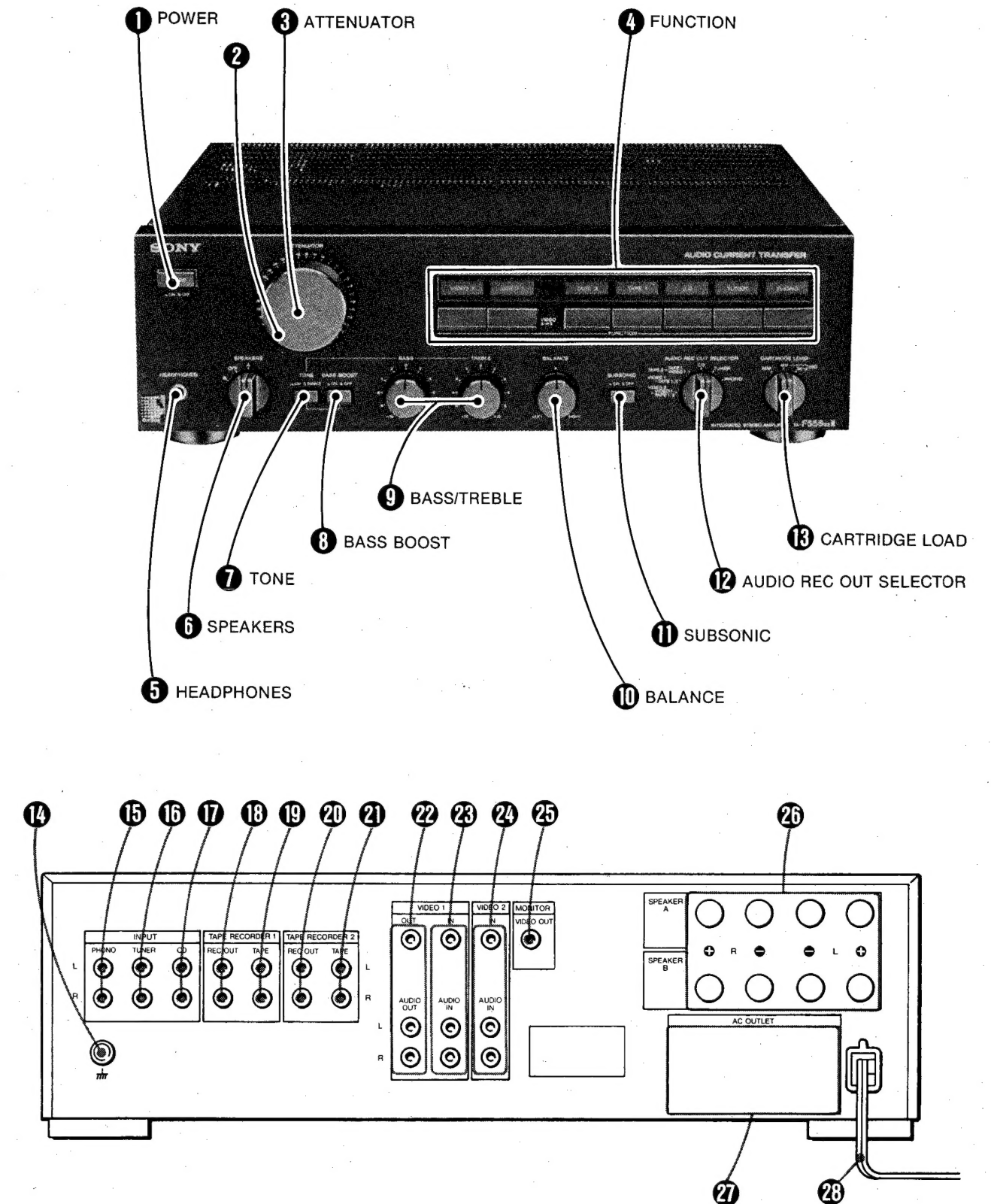
#### CARTRIDGE SELECTOR

The high-gain equalizer amplifier stage accepts both MM (Moving-Magnet) and MC (Moving-Coil) cartridges.

#### AUDIO REC OUT SELECTOR SWITCH

With the AUDIO REC OUT SELECTOR switch, you can select the sound source to be recorded while listening to another audio source. This switch is also used to select tape (audio and video) dubbing and editing mode.

### 1-2. FUNCTION OF CONTROLS



## Front panel

### ① POWER switch

Turns the operating power on or off.

### ② Power/standby indicator

When the power is turned on, the muting circuit activates and the indicator blinks in red. The indicator then lights up in green indicating that the unit is now in standby.

The indicator will also blink in red when the protection circuit is activated.

### ③ ATTENUATOR knob

Regulates the overall sound level.

Turning the knob toward 0 increases the volume and turning it toward  $-\infty$  decreases the volume. Be sure to lower the volume whenever you turn the amplifier on or off.

### ④ FUNCTION buttons and indicators

Press to select the desired audio or video program source. Press another button to change the program. The indicator lamp above the pressed button will light up, indicating the program in use.

### ⑤ HEADPHONES jack

Accepts any low or high impedance stereo headphones.

For headphone monitoring only, set the SPEAKERS selector to OFF.

### ⑥ SPEAKERS selector

Selects speaker system A or B.

### ⑦ TONE switch

Depress this switch ( $\Delta$  ON) when you adjust the tone controls or when you use the BASS BOOST switch. While you keep the switch released ( $\square$  DIRECT), the tone control circuits are completely disconnected from the signal path and a flat frequency response is obtained.

### ⑧ BASS BOOST switch

Depress this switch ( $\Delta$  ON) when you are driving a speaker system such as a small bookshelf type system, which has a weak bass response.

When the BASS BOOST switch is to be used, be sure to first depress the TONE switch ( $\Delta$  ON).

### ⑨ BASS and TREBLE tone controls

These knobs control the prominence of bass and treble response. Clockwise rotation increases response; counterclockwise rotation decreases it. Adjust the tone to the acoustic condition of the listening room or to your preference.

When these tone controls are to be used, be sure to first depress the TONE switch ( $\Delta$  ON).

### ⑩ BALANCE control

Governs the amount of sound coming from each paired speaker to get optimum stereo effect.

### ⑪ SUBSONIC filter switch

If subsonic noise components created by warped records, etc. are present, the audible range frequencies may be modulated and cause irritating intermodulation distortion. In this case, depress the switch ( $\Delta$  ON) to reduce unwanted noise components in the program source. The filter will cut off any input signals below 15 Hz at a 6 dB-per-octave rate. Press the switch again to release it ( $\square$  OFF).

### ⑫ AUDIO REC OUT SELECTOR switch

Permits you to select the desired program source you want to record.

For tape dubbing or video editing, set this switch to appropriate position.

### ⑬ CARTRIDGE LOAD selector

Before you play a record, be sure to set the selector as follows:

Moving-Magnet (MM) type cartridge

Set the CARTRIDGE LOAD selector to MM.

Moving-Coil (MC) type cartridge

40  $\Omega$ : for a cartridge with an impedance of 40 ohms or more.

3  $\Omega$ : for a cartridge with an impedance in the 3 to 40 ohms range.

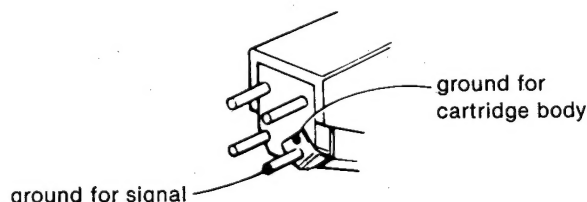
## Rear panel

### ⑭ Ground terminal

To prevent hum, be sure to connect the ground wire of the turntable system to this ground terminal. If hum still exists, it may be helpful to connect the ground terminal directly to earth via a ground rod.

#### Note

In some particular MM cartridges, the ground for signal is connected to the ground for cartridge body. If this type of cartridge should be installed to a metal cartridge shell, current will flow through the tonearm ground in a loop and will cause hum noise. In this case, disconnect the turntable ground wire from the  $\text{---}$  terminal of the amplifier, or disconnect the ground for cartridge body from the ground for signal.



⑮ PHONO inputs (phono jack)

⑯ TUNER inputs (phono jack)

⑰ CD inputs (phono jack)

⑱ TAPE RECORDER 1 REC OUT outputs (phono jack)  
Accept the inputs of a tape deck for recording.

⑲ TAPE RECORDER 1 TAPE inputs (phono jack)  
Accept the line outputs of a tape deck for playback.

⑳ TAPE RECORDER 2 REC OUT outputs (phono jack)  
Accept the inputs of a second tape deck for recording.

㉑ TAPE RECORDER 2 TAPE inputs (phono jack)  
Accept the line outputs of a second tape deck for playback.

㉒ VIDEO 1 OUT output and VIDEO 1 AUDIO OUT outputs (phono jack)  
VIDEO 1 OUT: Accepts the video input of a video recorder.  
VIDEO 1 AUDIO OUT: Accept the audio inputs of a video recorder.

㉓ VIDEO 1 IN input and VIDEO 1 AUDIO IN inputs (phono jack)  
VIDEO 1 IN: Accepts the video output of a video recorder.  
VIDEO 1 AUDIO IN: Accept the audio outputs of a video recorder.

㉔ VIDEO 2 IN input and VIDEO 2 AUDIO IN inputs (phono jack)

VIDEO 2 IN: Accepts the video output of a TV tuner for multiple video source connection, a monaural video recorder or a second video recorder for video editing.

VIDEO 2 AUDIO IN: Accept the audio outputs of a TV tuner for multiple video source connection, a monaural video recorder or a second video recorder for video editing.

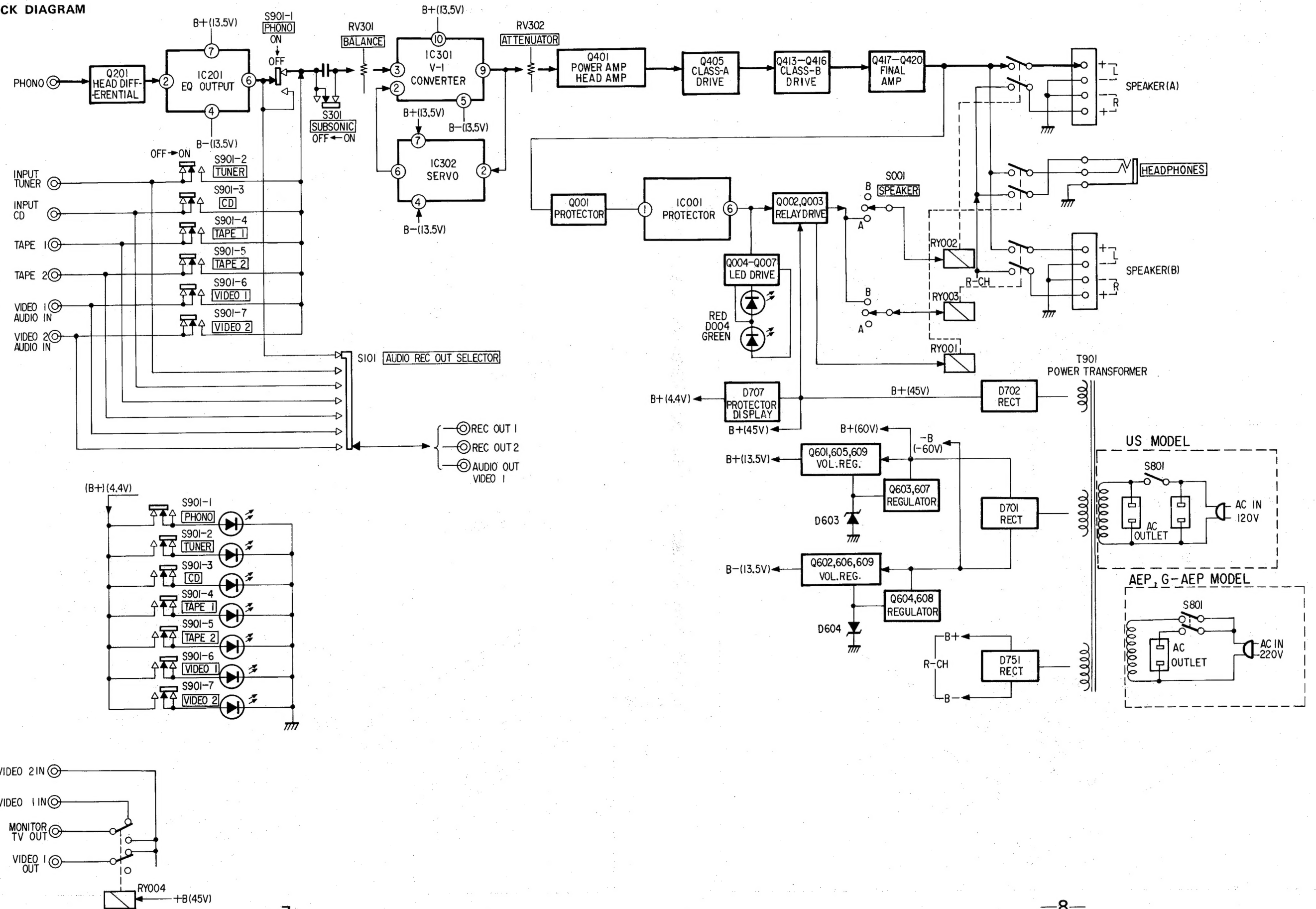
㉕ MONITOR VIDEO OUT output (phono jack)  
Accepts the input of a color monitor.

㉖ SPEAKER A, B connectors  
For connecting a speaker system or two pairs of speaker systems. System A and system B can be selected by means of the front panel SPEAKERS selector.

㉗ AC OUTLETS  
These are used to power other audio components whose power consumption is less than the wattage indicated on the ac outlet.

㉘ Power cord

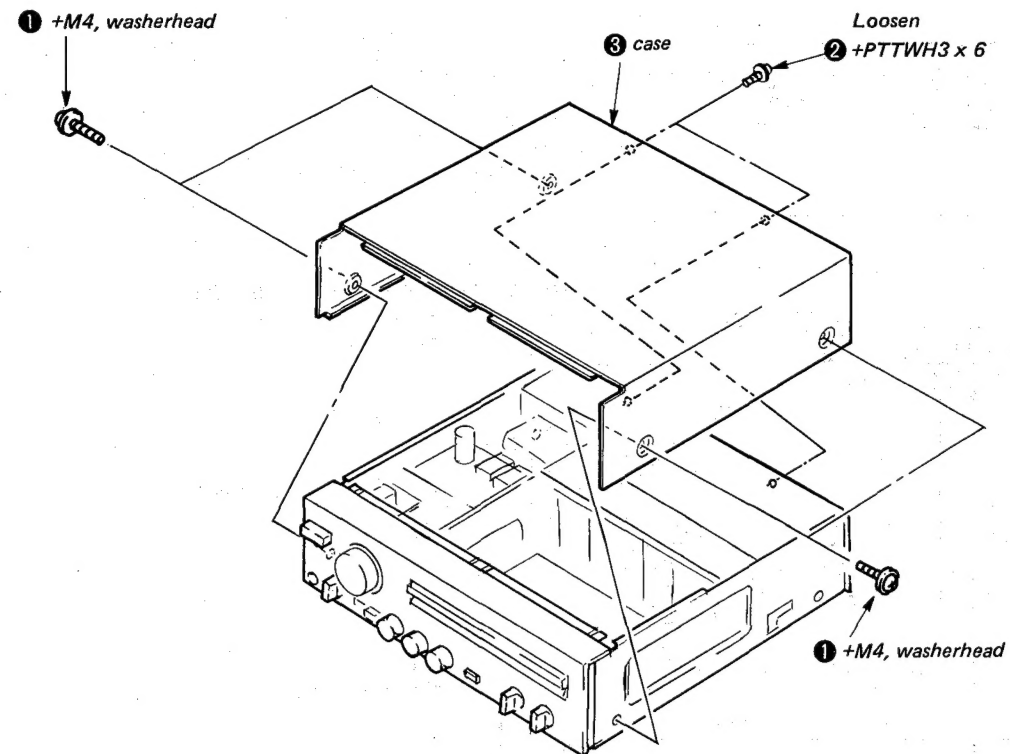
1-3. BLOCK DIAGRAM



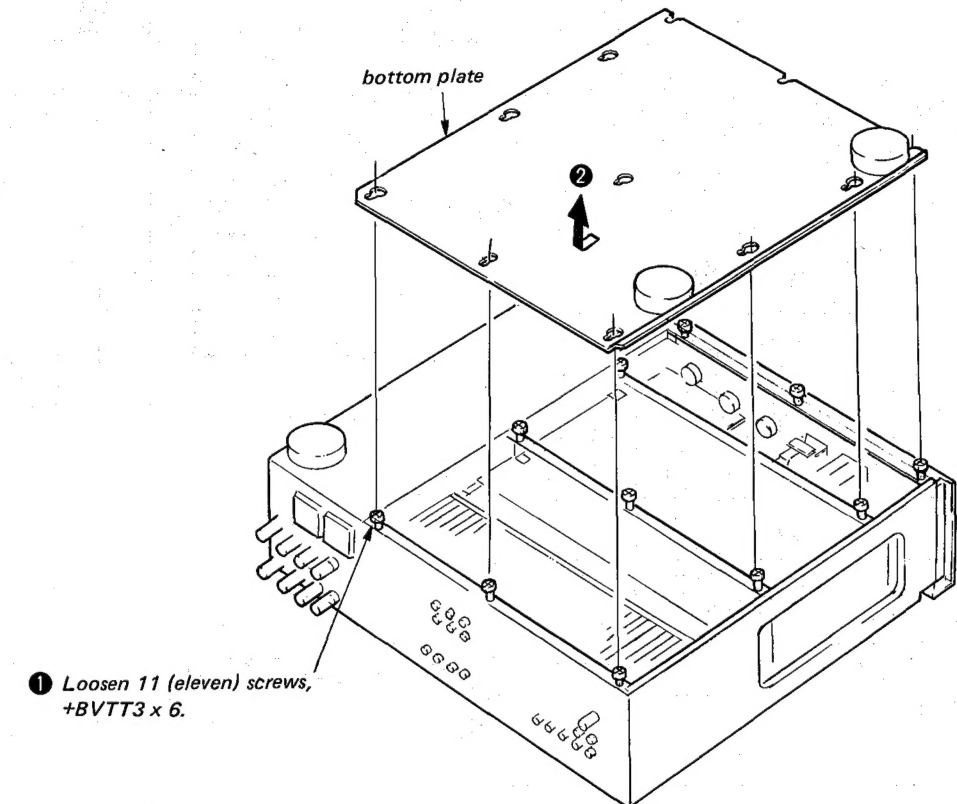
## SECTION 2 DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

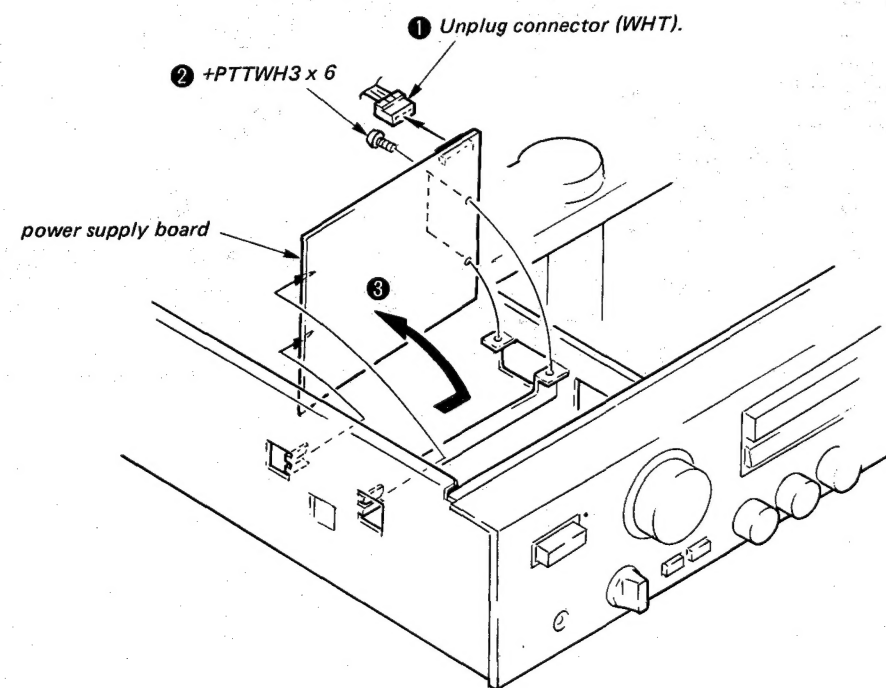
### CASE REMOVAL



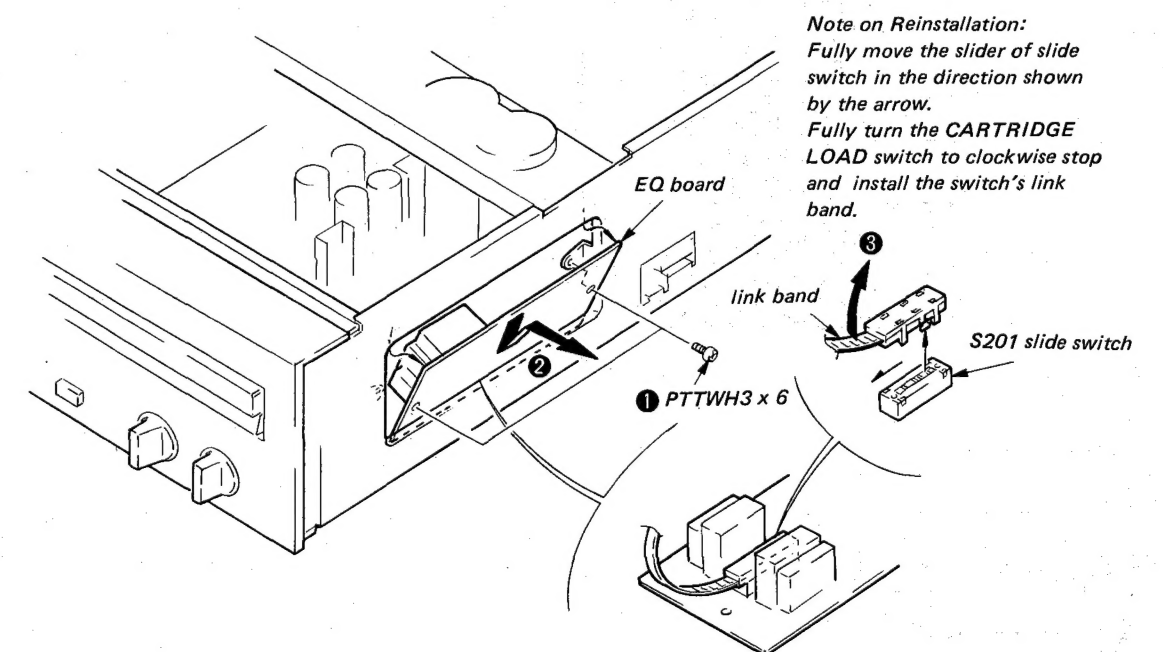
### BOTTOM PLATE REMOVAL



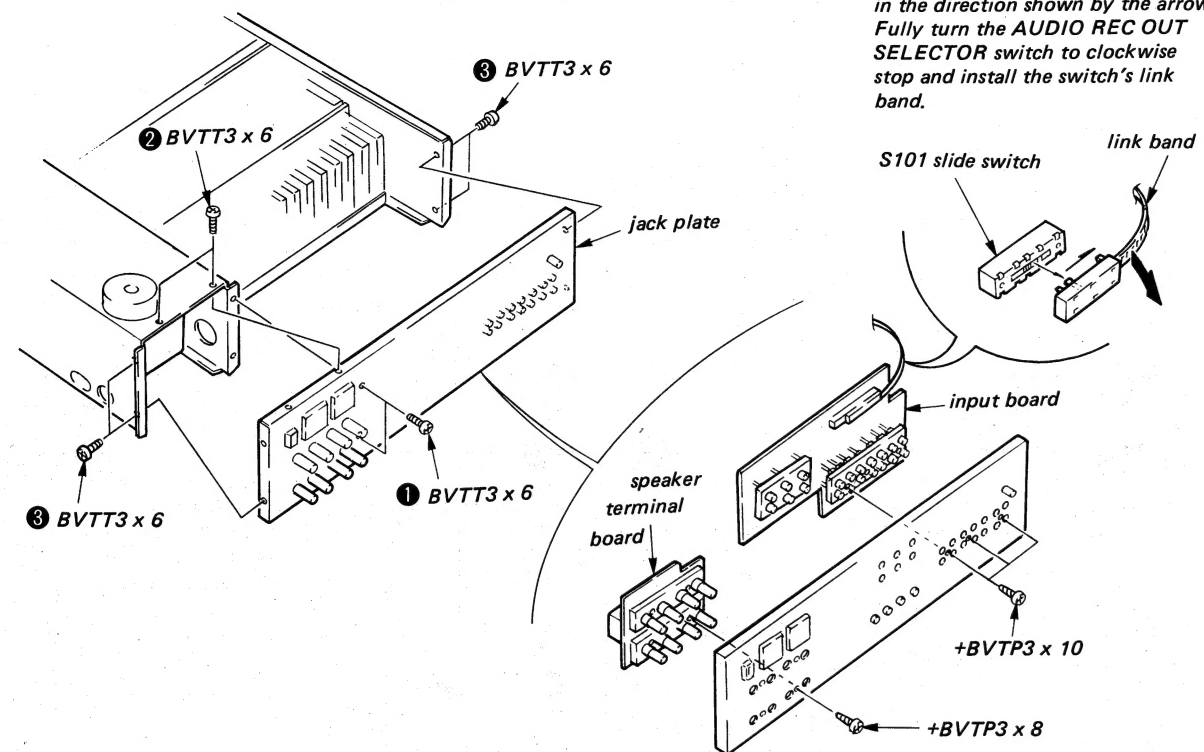
### POWER SUPPLY BOARD REMOVAL



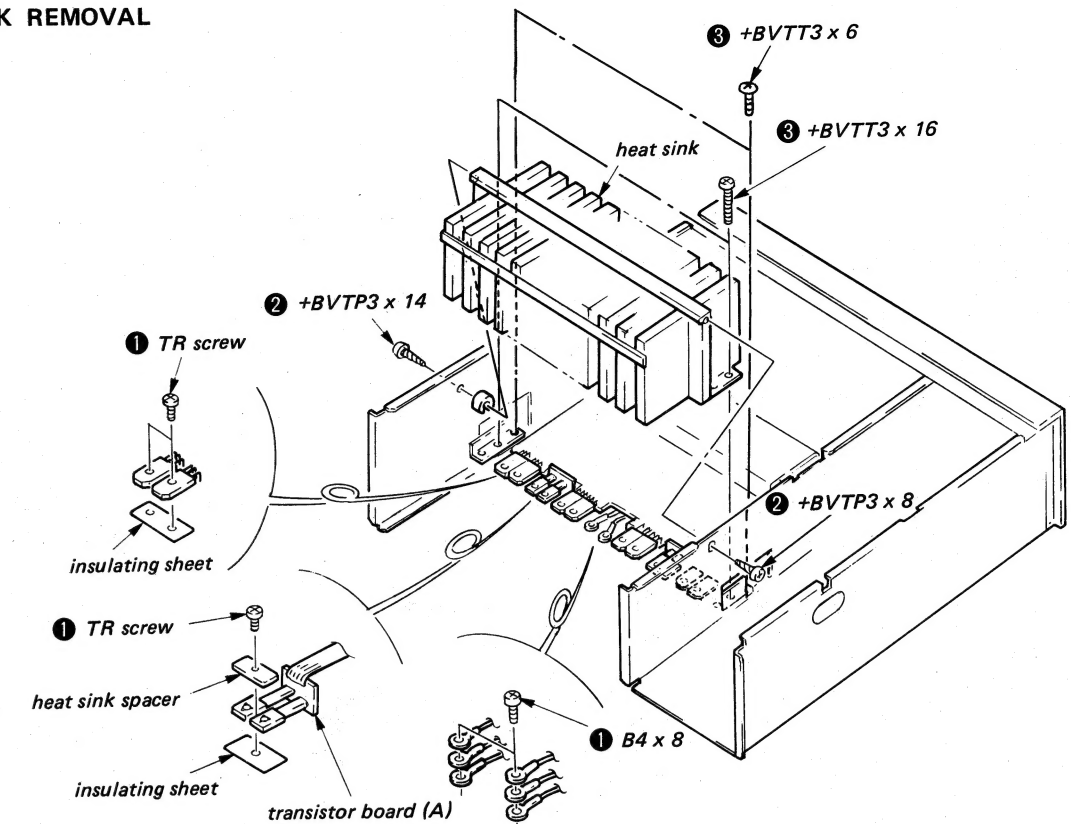
### EQ BOARD REMOVAL



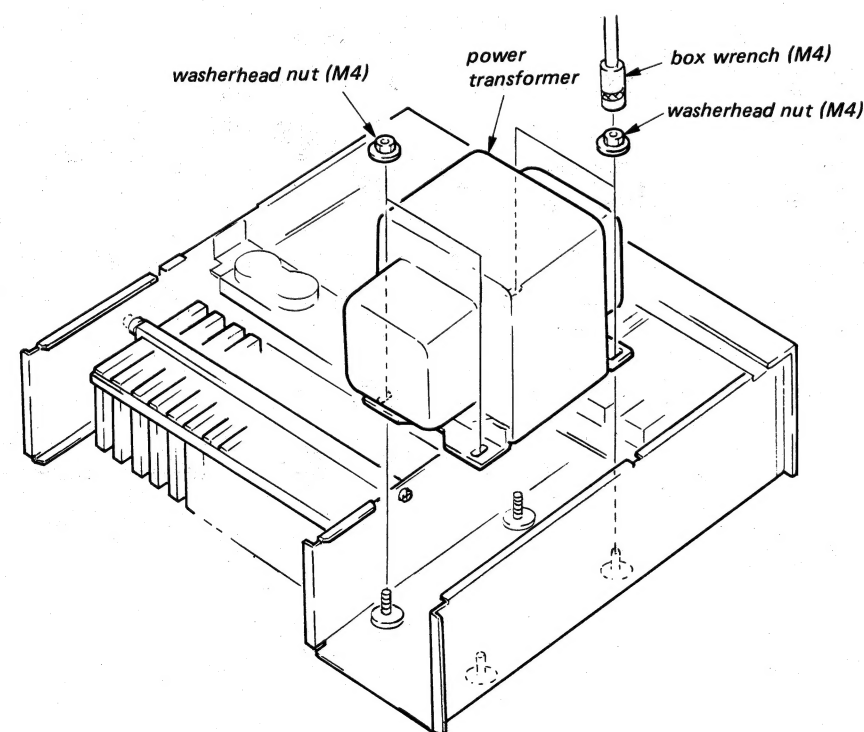
# INPUT BOARD, SPEAKER TERMINAL BOARD REMOVAL



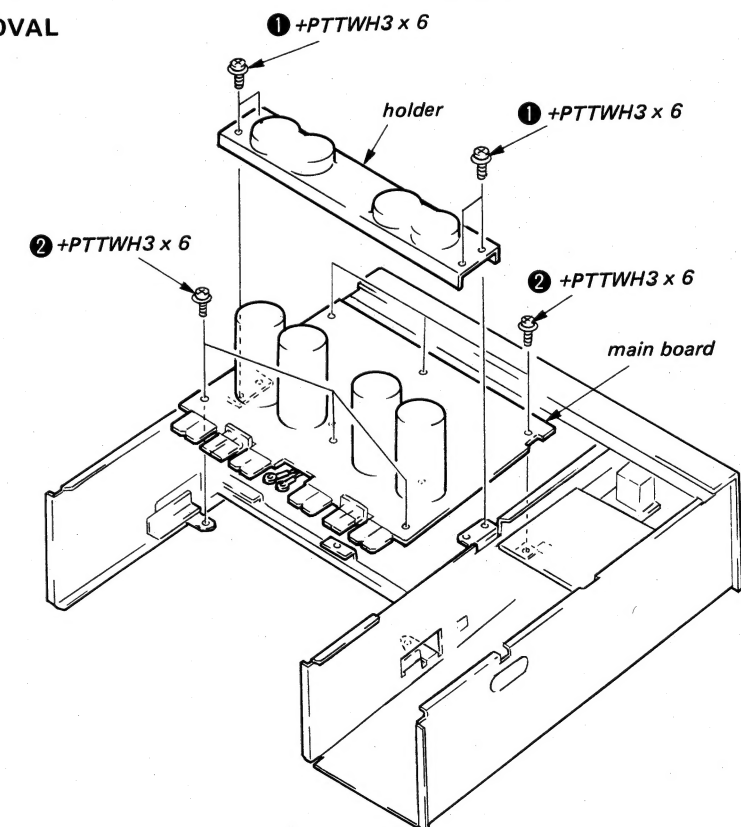
# HEAT SINK REMOVAL

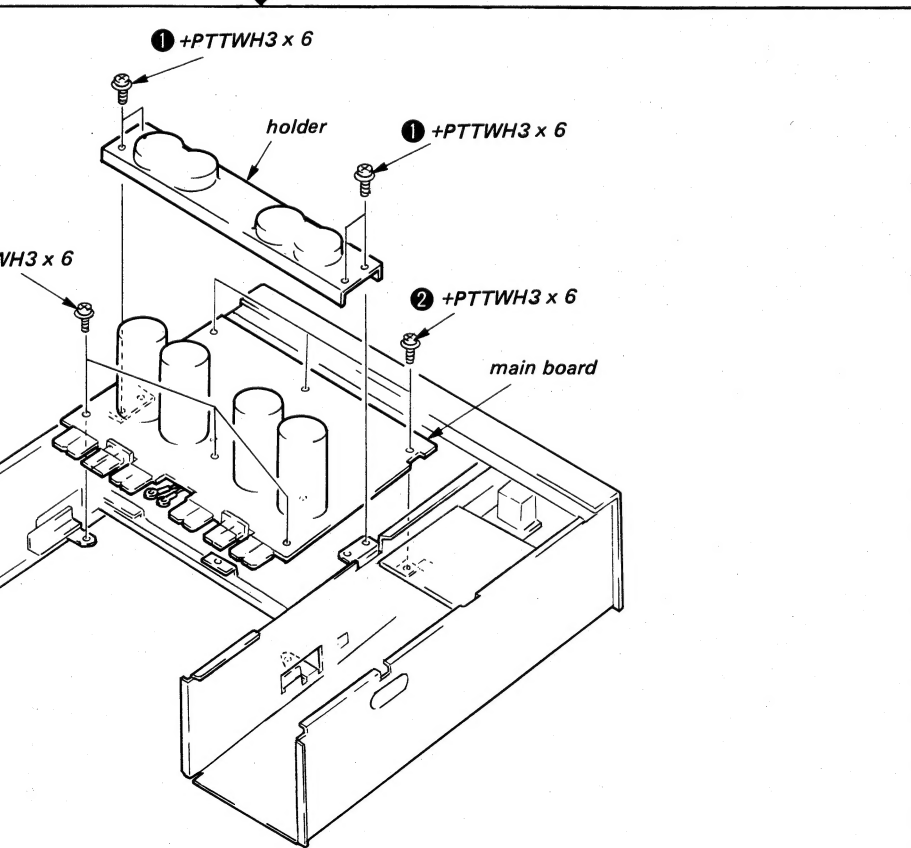
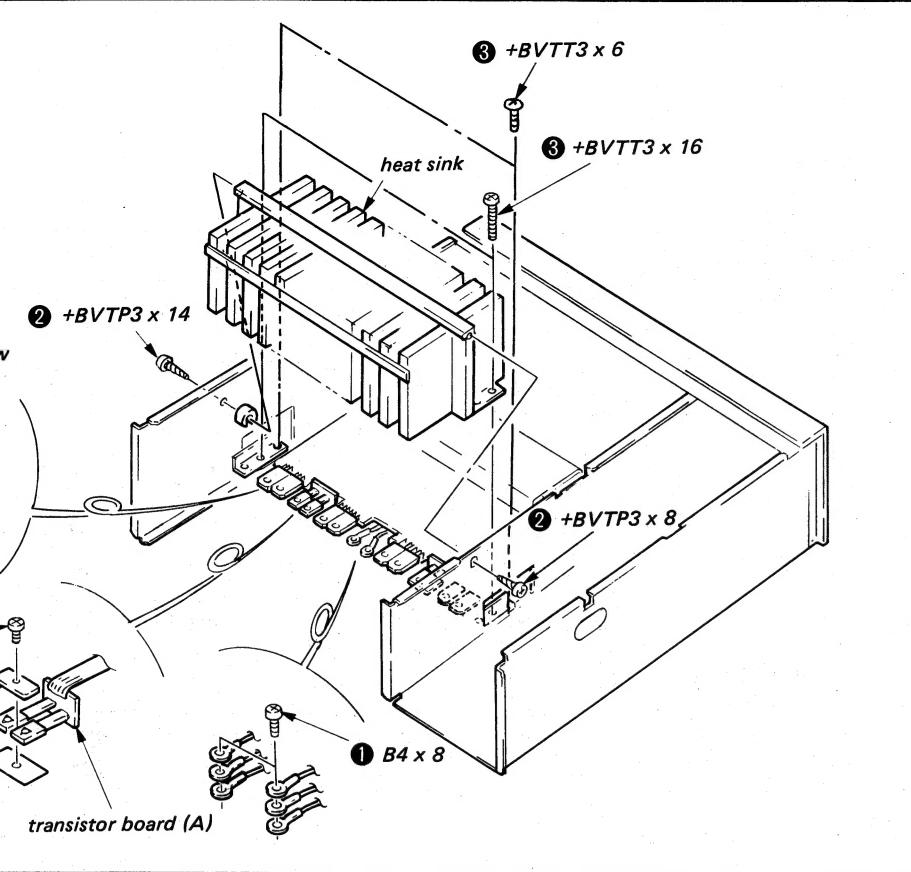


# POWER TRANSFORMER REMOVAL



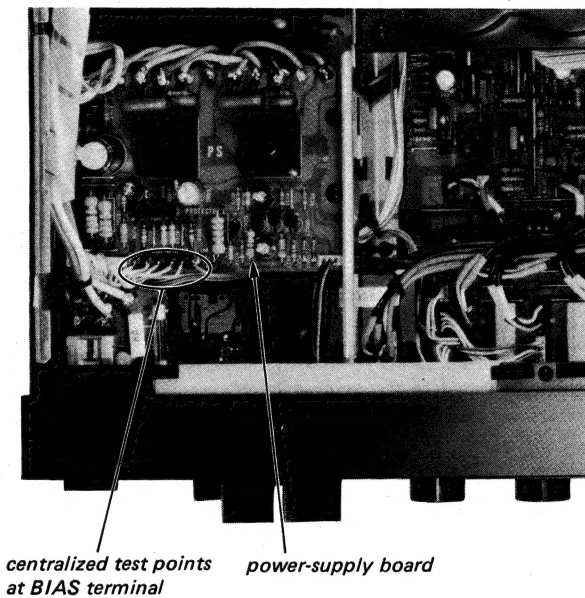
# MAIN BOARD REMOVAL





**Precautions:**

1. This unit requires about 20 – 30 minutes as a warming-up period to obtain a stable conditions before adjustments.
2. Unless otherwise specified, set the BALANCE, TREBLE and BASS controls/switch to their center click positions.
3. All the test points are located at the BIAS terminal on the power-supply board (centralized) as shown below.
4. Turn POWER off and fully discharge electricity from these high-capacity electrolytics as C711, C712, C761, C762 (10000 $\mu$ F), C607, C608, C657, C658 and C703 (1000 $\mu$ F) by using test crip leads before using soldering iron when replacing defective components. Otherwise, strong discharging from soldering iron may occur.



**DC Balance Adjustment to Power-Amplifier Section**

**Setting:**

ATTENUATOR switch: Fully counterclockwise (minimum)  $\infty$   
FUNCTION switch: Other than PHONO

**Procedure:**

1. Connect the plus test lead of VOM to L (+) and minus test lead to chassis ground, terminal G.
2. Adjust RT401 (L-CH) so that VOM reads 0  $\pm$ 30mV DC. Record the setting voltage value.
3. Connect the plus test lead of VOM to R (+) terminal and minus test lead to chassis ground, terminal G.
4. Adjust RT451 (R-CH) so that VOM reads 0  $\pm$ 30mV DC. Record the setting voltage value.

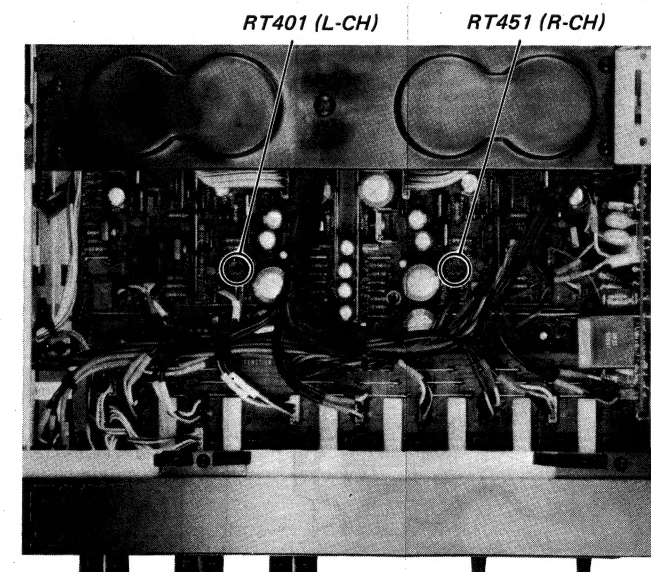
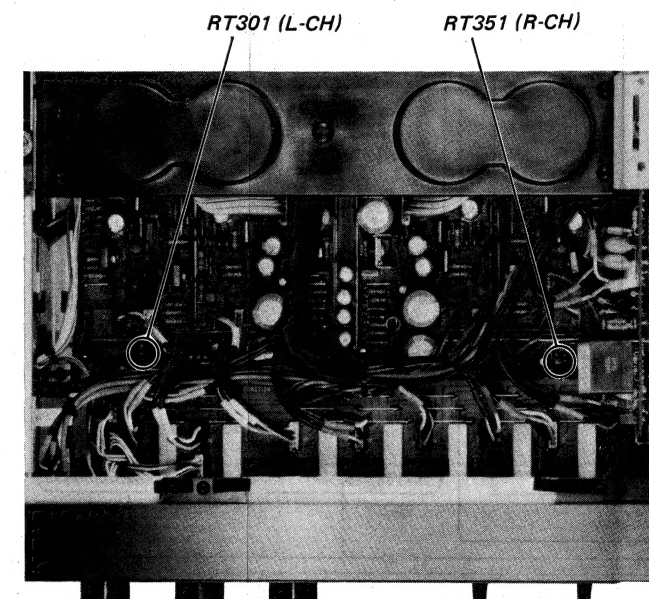
**DC Balance Adjustment to V-I Amplifier**

**Setting:**

ATTENUATOR switch: Slowly advance from minimum position to 0dB (maximum).  
FUNCTION switch: Other than PHONO

**Procedure:**

With VOM connected to the same test points as in the DC Balance Adjustment to Power-Amplifier Section, adjust RT301 (L-CH) and RT351 (R-CH) so that VOM reads the voltage value recorded in the adjustment to the power-amplifier section.  $\pm$ 5mV off settings from those voltages for the power-amplifier section are allowable.



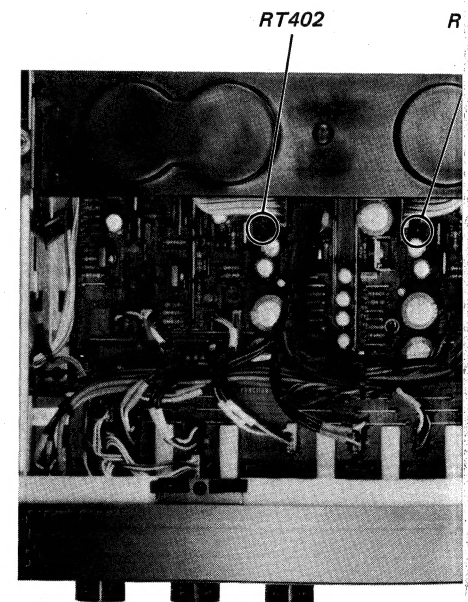
**Idling Adjustment**

**Setting:**

ATTENUATOR switch: Fully counter (minimum) position to 0dB (maximum).  
POWER switch: Turn off the unit to temperature turn it on

**Procedure:**

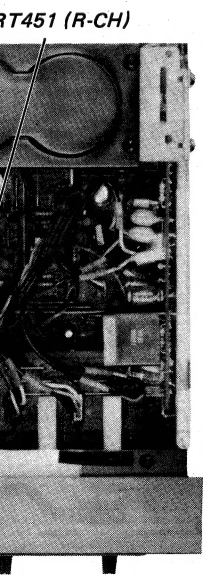
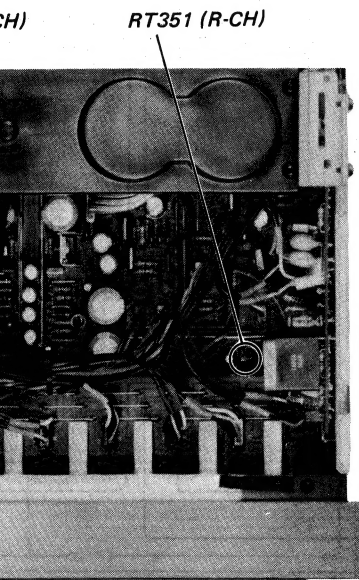
1. Connect VOM across the L (+) and minus test lead to chassis ground, terminal G.
2. Turn POWER switch on. Observe VOM reading. After time passes.  
a) Immediately after turning on, the VOM reading is about 2mV.  
b) 23 seconds later and relay and the ATTENUATOR knob turned, the VOM reading is 9 – 10mV.  
c) 1 (one) minute later: 14 – 15mV.
3. Run the unit for about 20 – 30 minutes to make it stable.
4. Adjust RT402 (L-CH) so that VOM reads 15mV  $\pm$ 2mV.
5. Connect VOM across the R (+) and minus test lead to chassis ground, terminal G. and adjust RT452 (R-CH) so that VOM reads 15mV  $\pm$ 2mV likewise.



to V-I Amplifier

ch: Slowly advance from minimum position to 0dB (maximum).  
Other than PHONO

to the same test points as adjustment to Power-Amplifier (L-CH) and RT351 (R-CH) the voltage value recorded in power-amplifier section.  
those voltages for the power-wable.



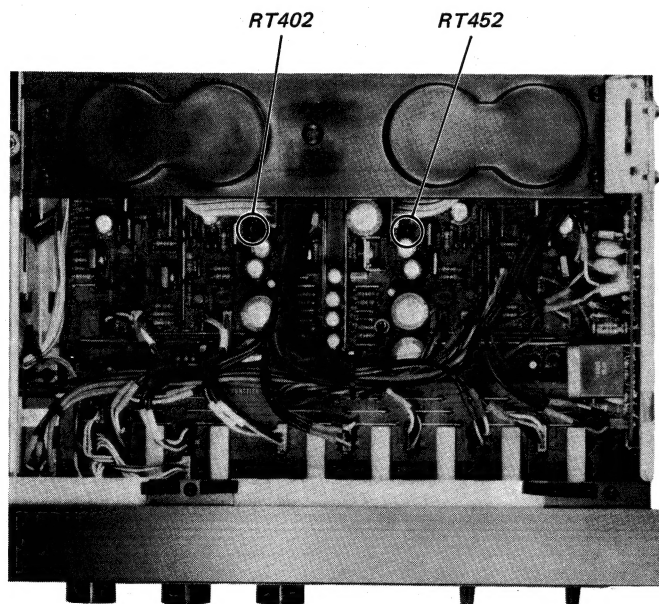
Idling Adjustment

Setting:

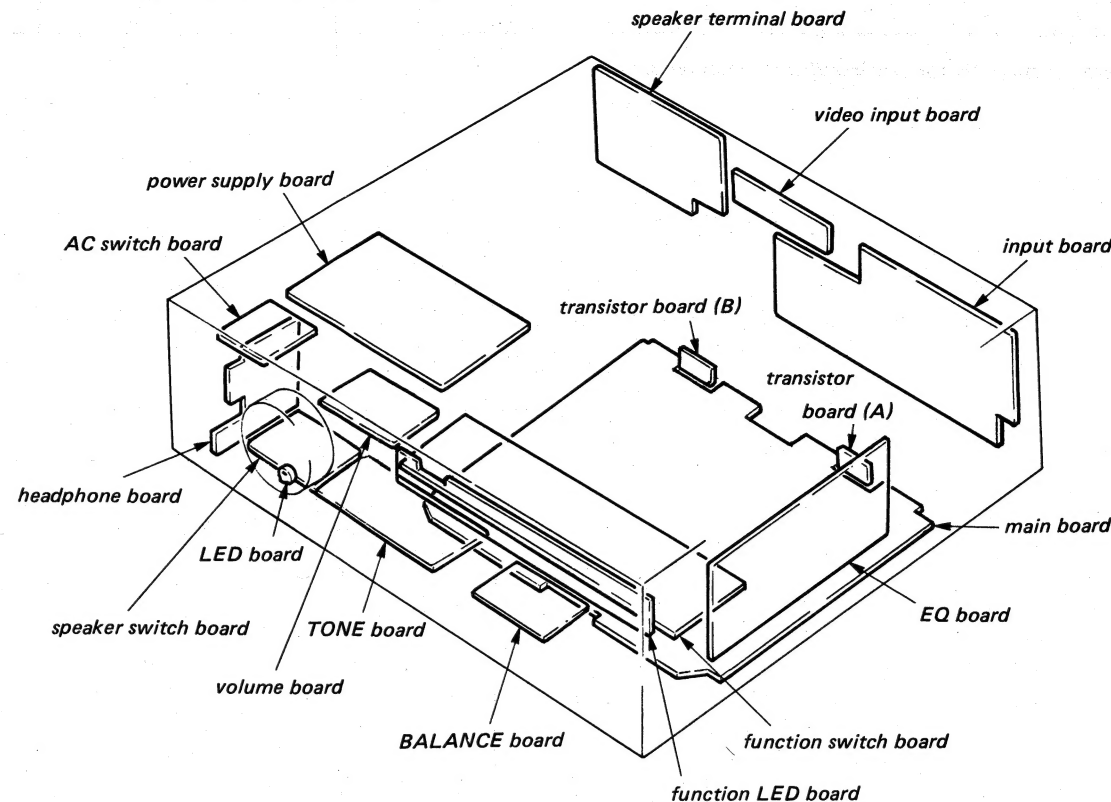
ATTENUATOR switch: Fully counterclockwise (minimum) ∞  
POWER switch: Turn off once to cool off the unit to ambient temperature, and then turn it on again.

Procedure:

1. Connect VOM across the L (+) and (-) terminals.
2. Turn POWER switch on. Observe VOM reading as time passes.
  - a) Immediately after turning on the power: 2mV
  - b) 23 seconds later and relay and green lamp in the ATTENUATOR knob turned on: 9 – 10mV
  - c) 1 (one) minute later: 14 – 15mV
3. Run the unit for about 20 – 30 minutes in this condition to make it stable.
4. Adjust RT402 (L-CH) so that VOM reads 15mV ±2mV.
5. Connect VOM across the R (+) and (-) terminals, and adjust RT452 (R-CH) so that VOM reads 15mV ±2mV likewise.



CIRCUIT BOARDS LOCATION



Semiconductor Lead Layout

<b>1SS202-1</b> cathode anode	<b>PB112E</b> mark cathode anode	<b>CX20198</b> <b>μPC1237H</b> 1 2 3 4 5	<b>2SA835</b> E B C	<b>μPA68H-M</b> D1 G1 S1 S2 G2 D2 SUB
<b>EQB01-06</b> cathode anode	<b>STV-2H</b> mark cathode anode	<b>2SK246GR</b> <b>2SK246GR2</b> S G D	<b>2SA939</b> <b>2SA1142</b> <b>2SC2071</b> <b>2SC2682</b> letter side E C B	<b>2SA1386</b> <b>2SC3519</b> B C E
<b>10E-2</b> <b>EQA01-06R2</b> <b>EQA01-35</b> cathode anode	<b>GL-5NG27</b> anode cathode	<b>2SA733</b> <b>2SC945-P</b> E C B	<b>2SK146-BL</b> E C B	<b>GL-5NP5</b> anode 1 cathode anode 2 (RED)
<b>HZ16-1L</b> <b>RD10E-B2</b> cathode anode	<b>NE5534P</b> <b>TL081CP</b> 8 7 6 5 1 2 3 4 (Top view)	<b>2SA985-P</b> <b>2SA1383-Q</b> <b>2SA2275-P</b> <b>2SC3514-Q</b> B C E	<b>2SA995</b> E1 C1 E2 C2	

(Refer to page 15 for semiconductor lead layouts.)

A

B

C

D

E

F

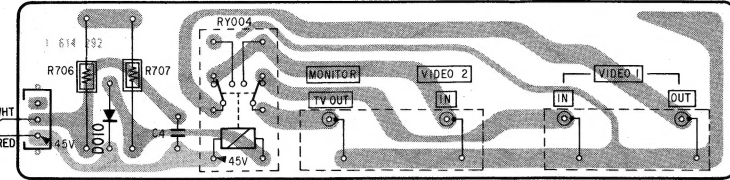
G

H

I

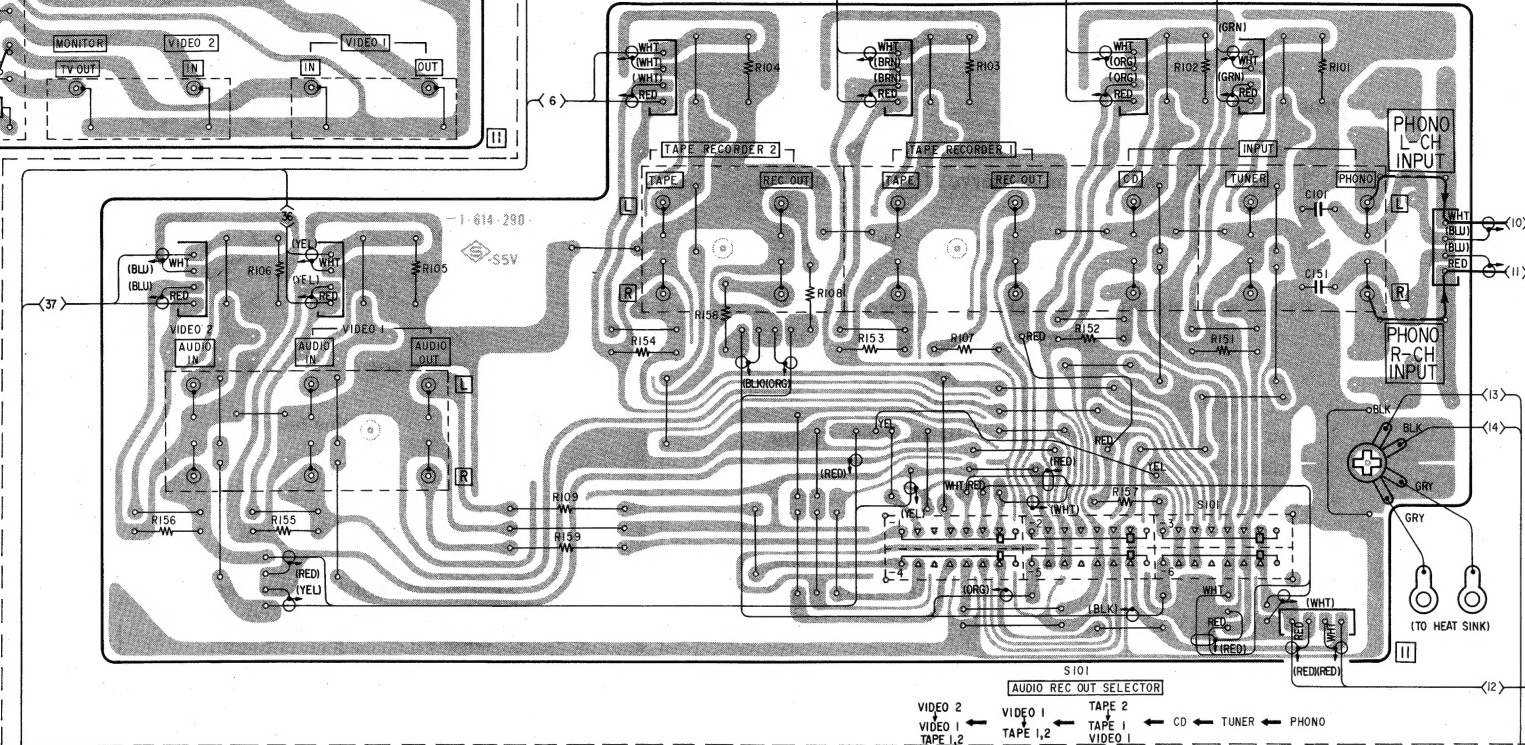
J

[VIDEO INPUT BOARD]

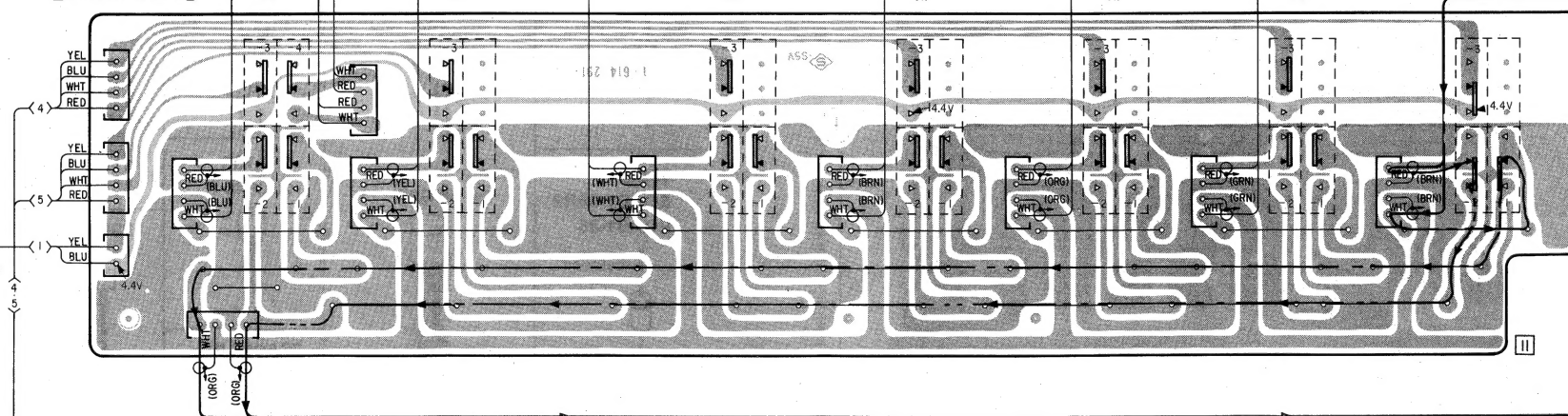


US, AEP MODEL (Refer to pages 26 and 27 for G-AEP model.)

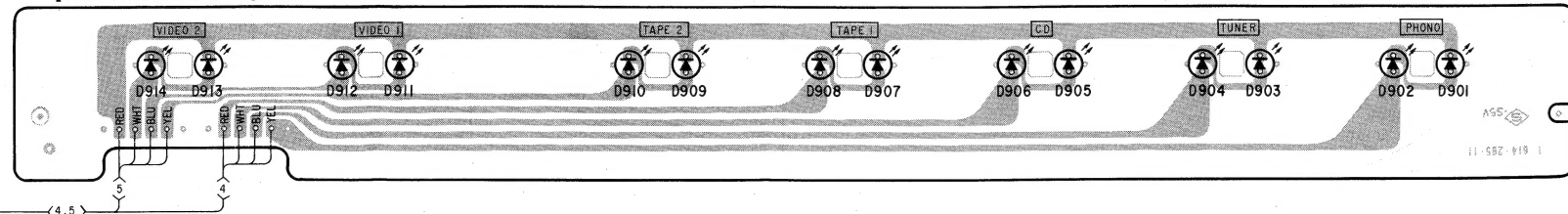
[INPUT BOARD]



[FUNCTION SWITCH BOARD]



[FUNCTION LED BOARD]



Q-IC

IC251, IC201

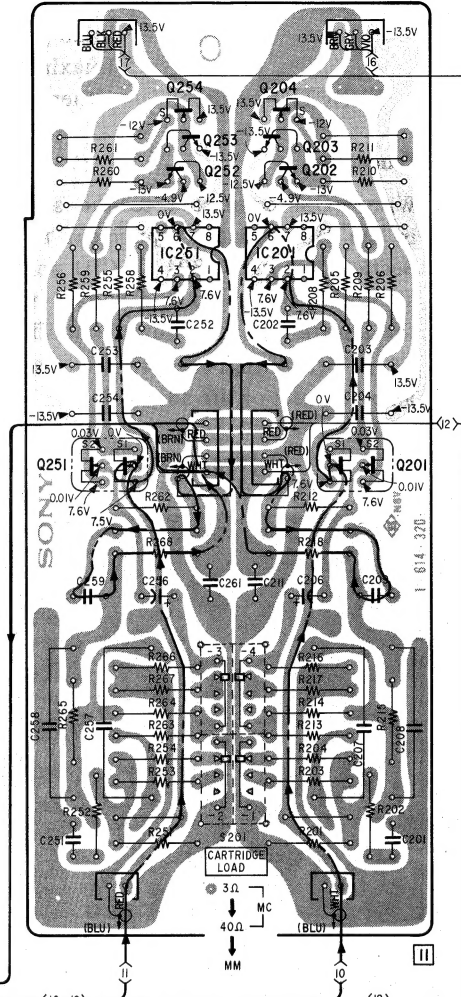
254 204

253 203

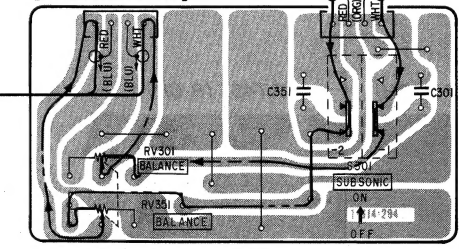
252 202

251 201

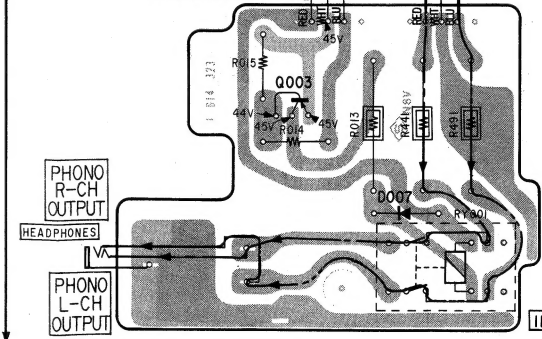
[EQ BOARD]



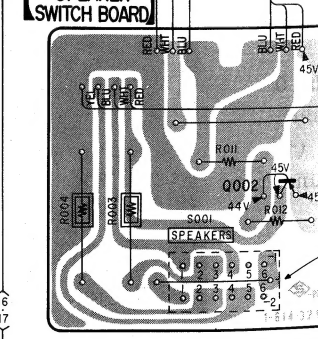
[BALANCE BOARD]



[HEADPHONE BOARD]

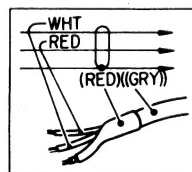


[SPEAKER SWITCH BOARD]

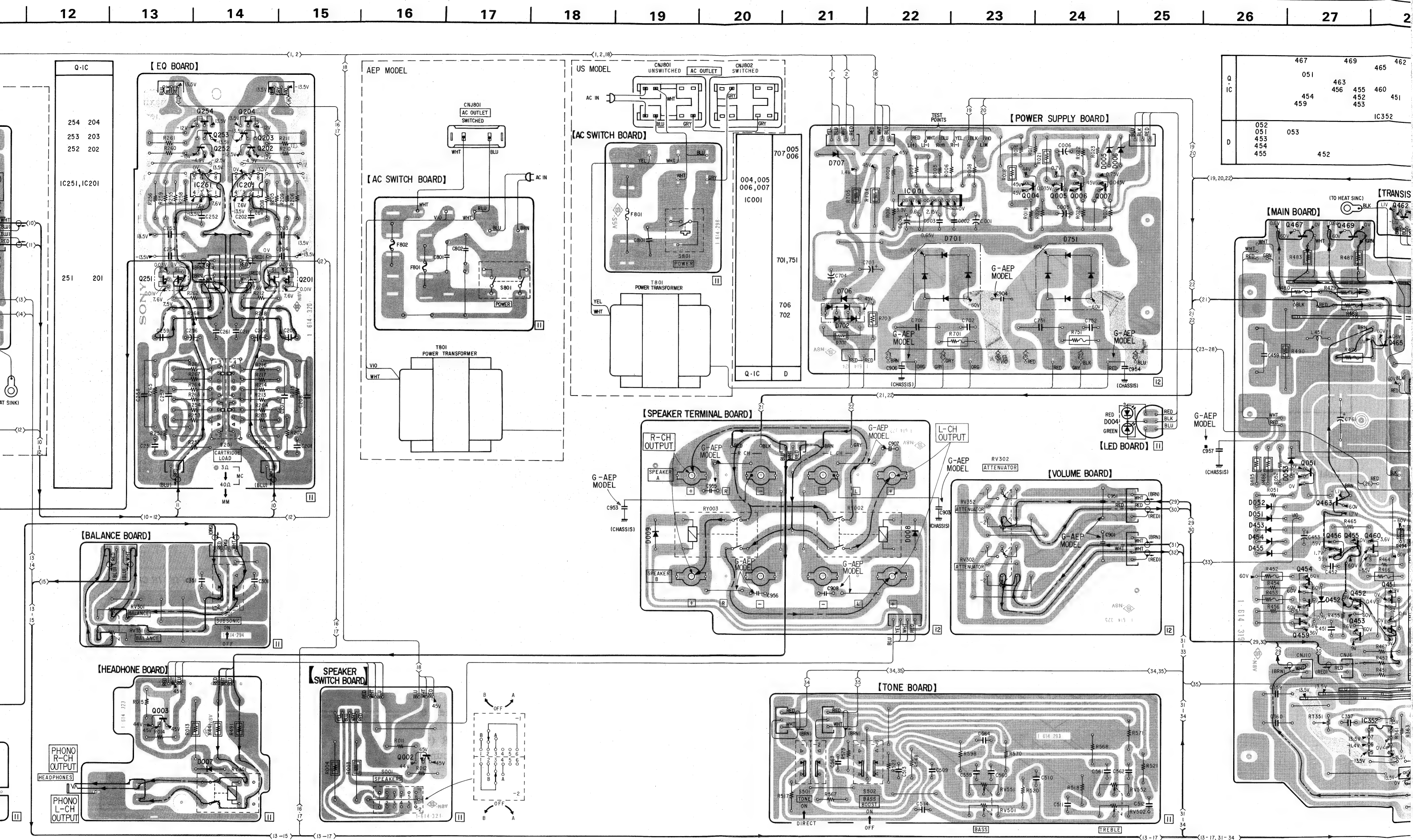


## Note:

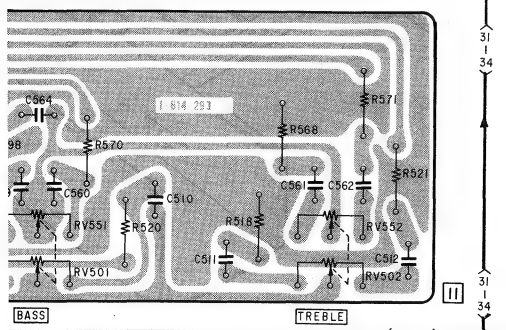
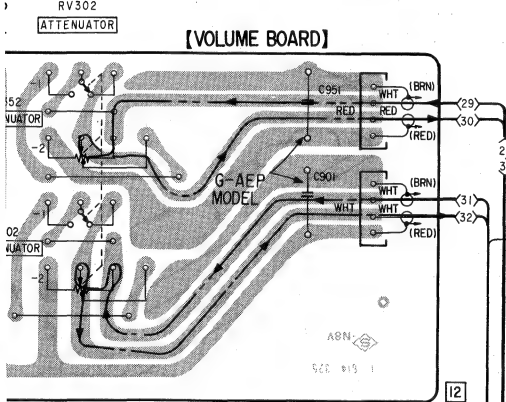
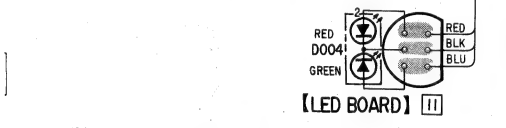
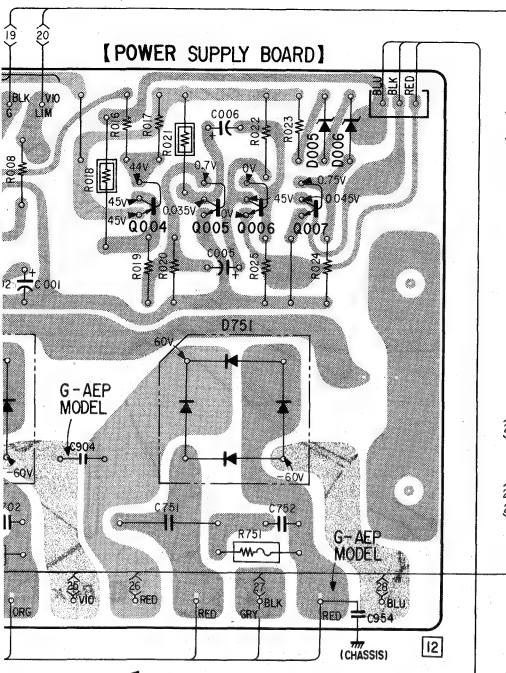
- Color code of sleeving over the end of the jacket.



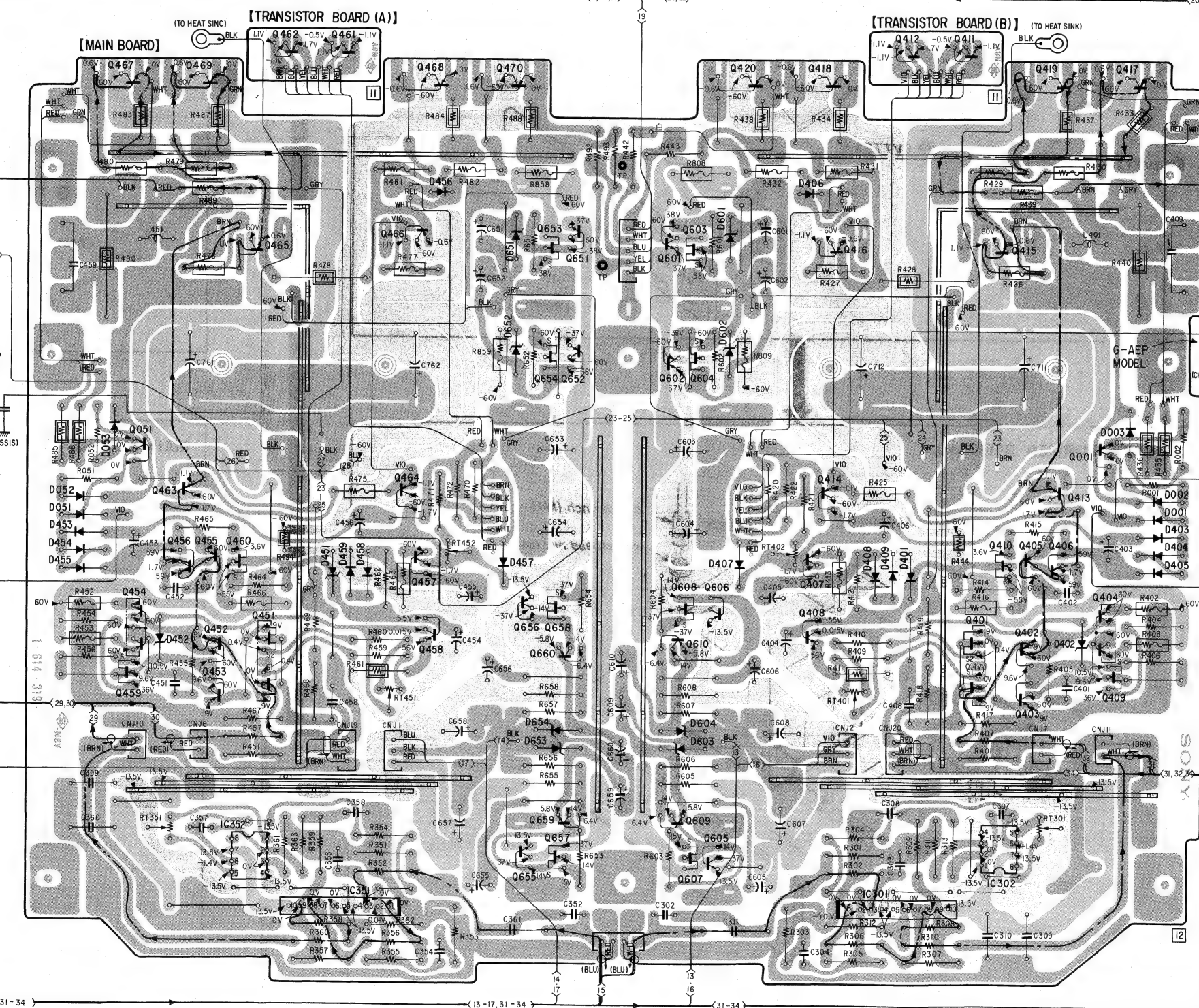
- : parts extracted from the component side.
- : signal path
- : L-CH signal path
- : R-CH signal path
- : B + pattern

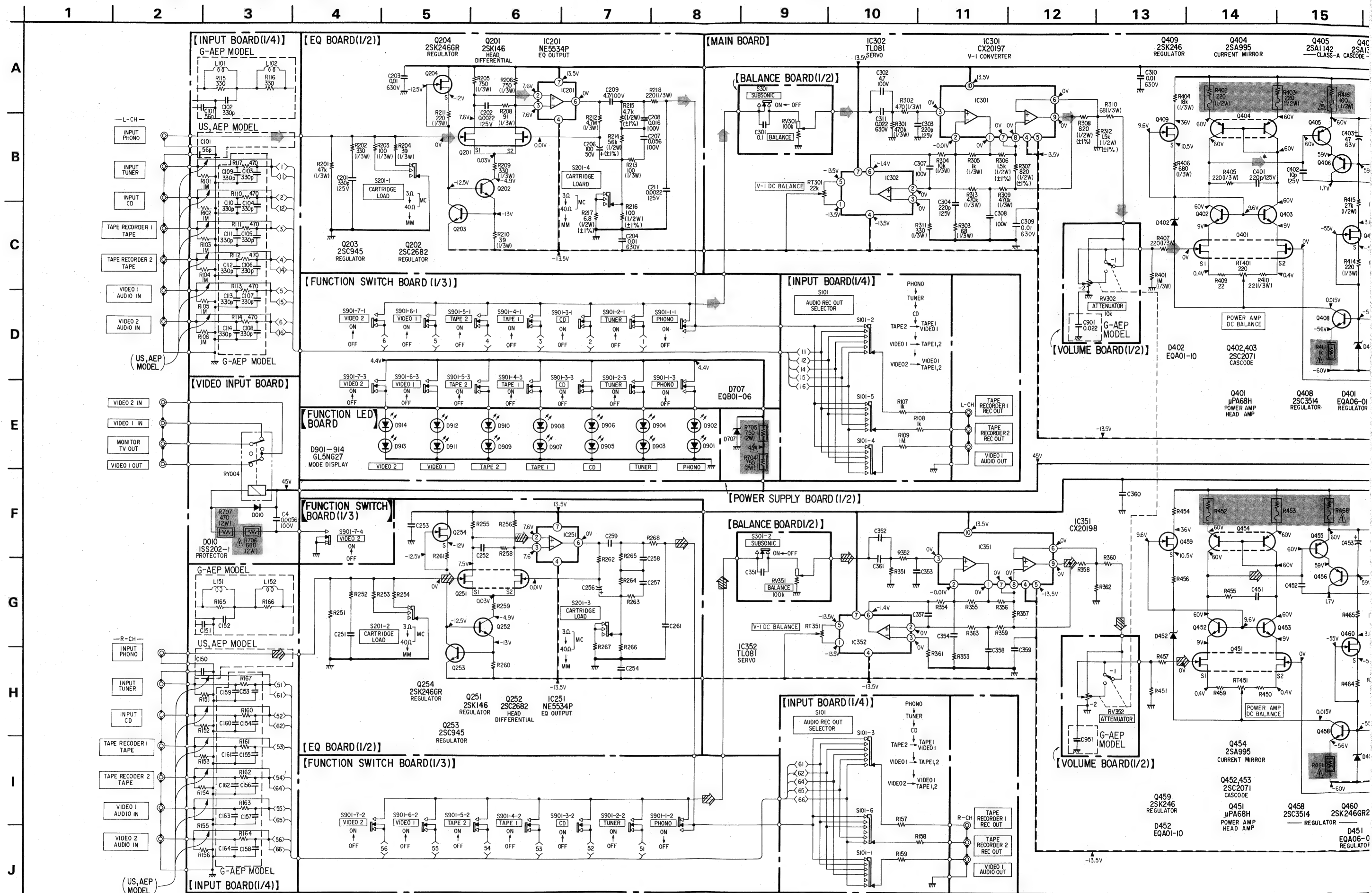


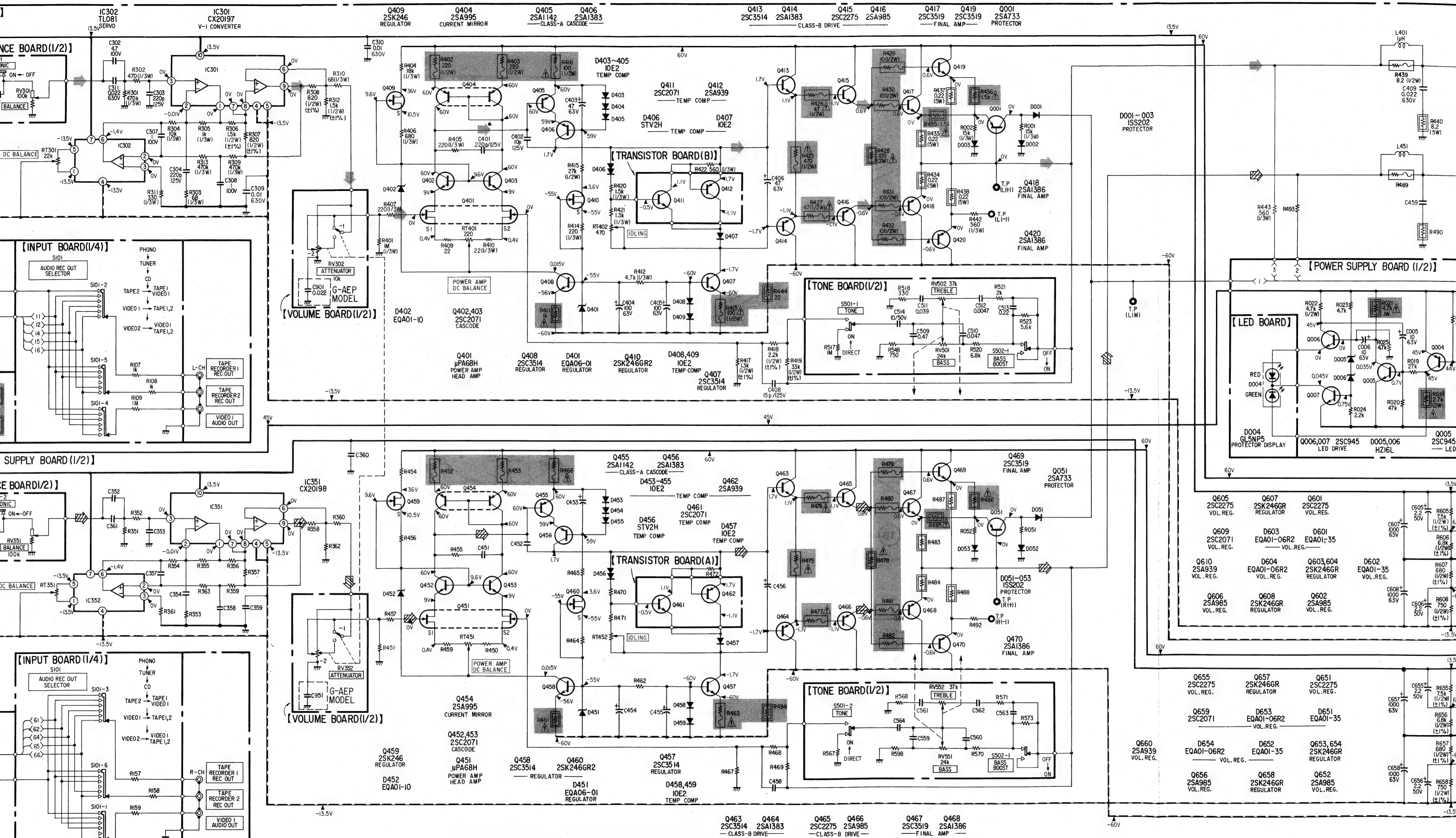
23 24 25 26 27 28 29 30 31 32 33 34 35

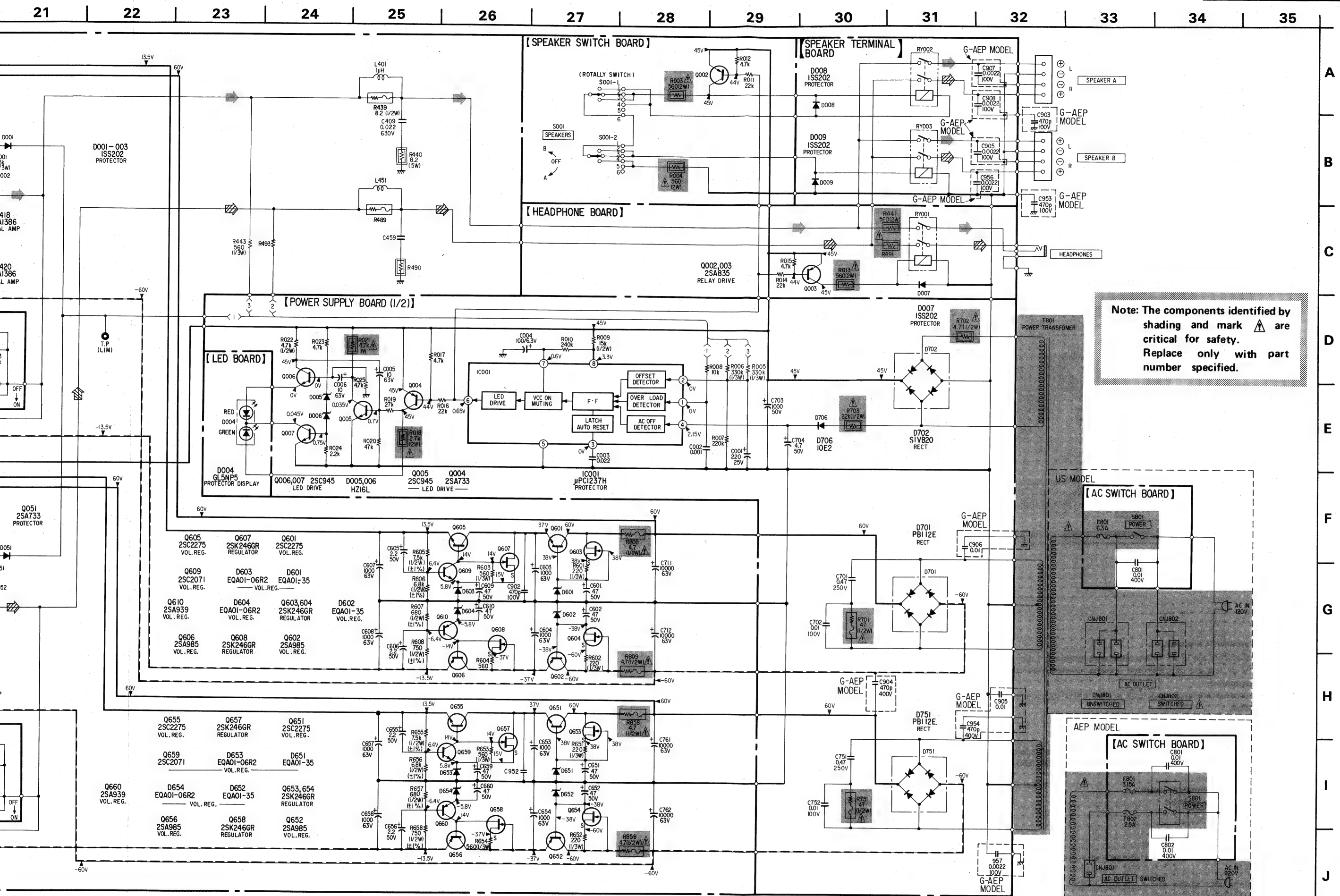


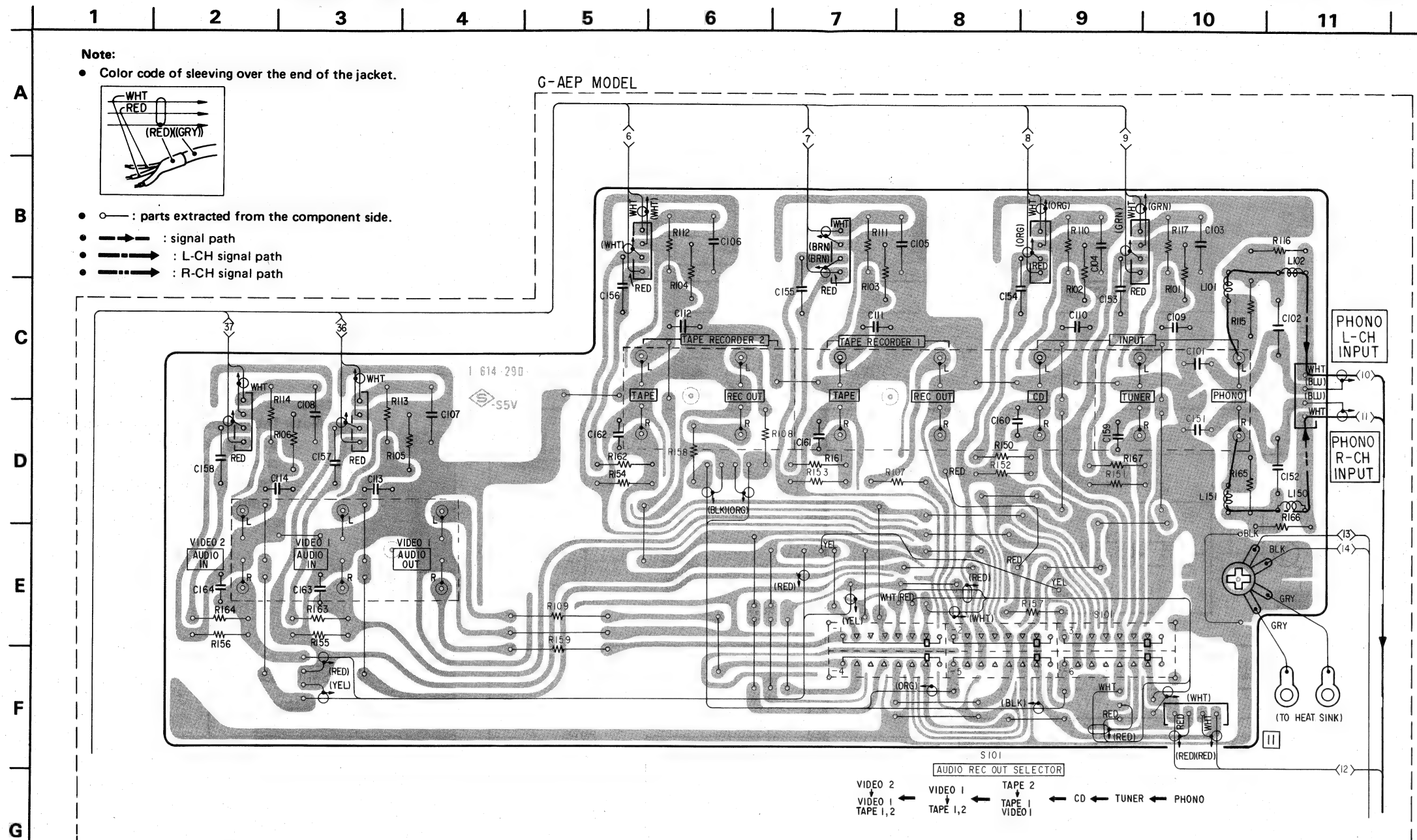
Q	467	469	465	462	461	468	470	653	651	601	603	420	418	416	412	411	415	419	001	417
IC	051	463	455	460	451	464	457	654	652	602	604	606	414	407	408		410	405	406	
	454	456	452	453			458	656	658	608	606						401	402	403	404
	459							655	659	609	605									409
								657	657	607										
D	052																			002
	051	053						651	652	601	602	407								003
	454							654	653	604	603									404
	455	452				451,459,458							408,409,401						402	405











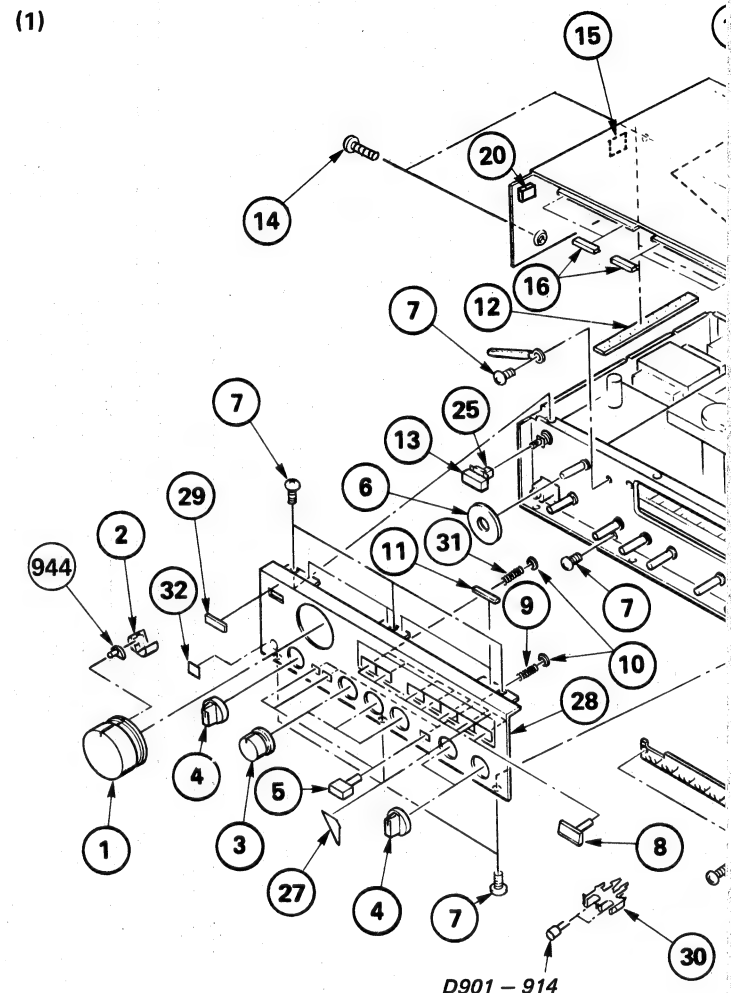
NOTE:

The mechanical parts with no reference number in the exploded views are not supplied.

The construction parts are indicated with number in the remark column.

Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

(1)



No.	Part No.	Description	Remarks	No.
1	X-4885-908-1	KNOB (NA-50) ASSY, R		18
2	*4-901-919-00	HOUSE, LED LAMP		19
3	4-885-971-01	KNOB (NA-25), R		20
4	4-885-972-01	KNOB (NA-25), FLAT		21
5	4-885-956-01	KNOB, PUSH		22
6	3-533-938-00	CLOTH		23
7	7-685-751-09	SCREW +BVTT 3X6 (S)		24
8	X-4885-913-1	T.KNOB ASSY		25
9	4-866-652-00	SPRING, COMPRESSION		26
10	4-862-338-00	RING, STOPPER		27
11	9-911-845-XX	CUSHION, COUNTER		28
12	4-848-642-00	CUSHION, VIBRATION		29
13	X-4885-901-0	KNOB ASSY, POWER		30
14	4-889-321-11	SCREW		31
15	*4-901-907-01	CUSHION		32
16	3-831-441-XX	CUSHION, SPEAKER		33
17	4-885-965-01	CASE		34

## SECTION 5

## EXPLODED VIEWS AND PARTS LIST

10


11

## NOTE:

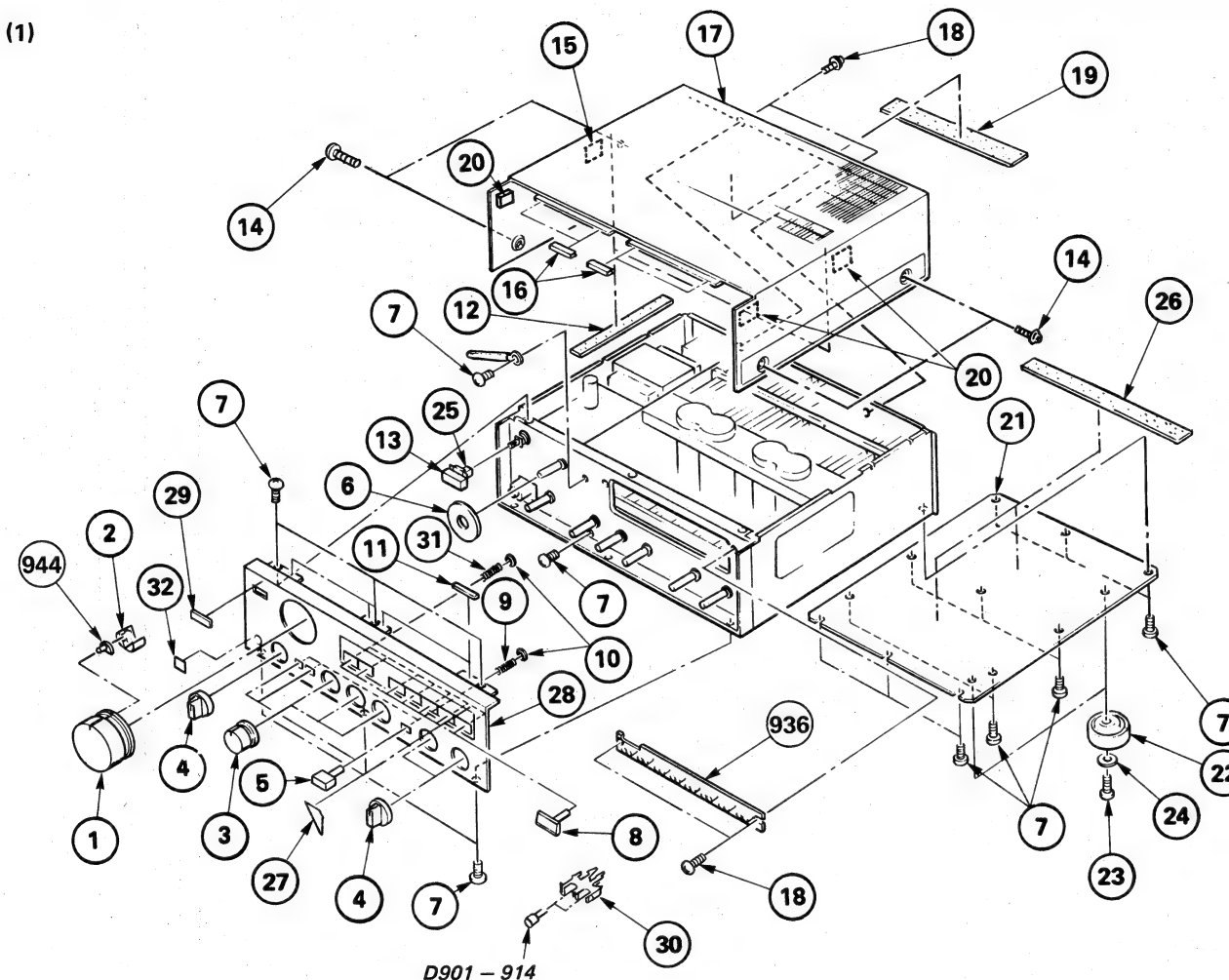
The mechanical parts with no reference number in the exploded views are not supplied.

Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The construction parts of an assembled part are indicated with a collation number in the remark column.

The components identified by shading and mark  are critical for safety. Replace only with part number specified.

(1)



D901 - 914

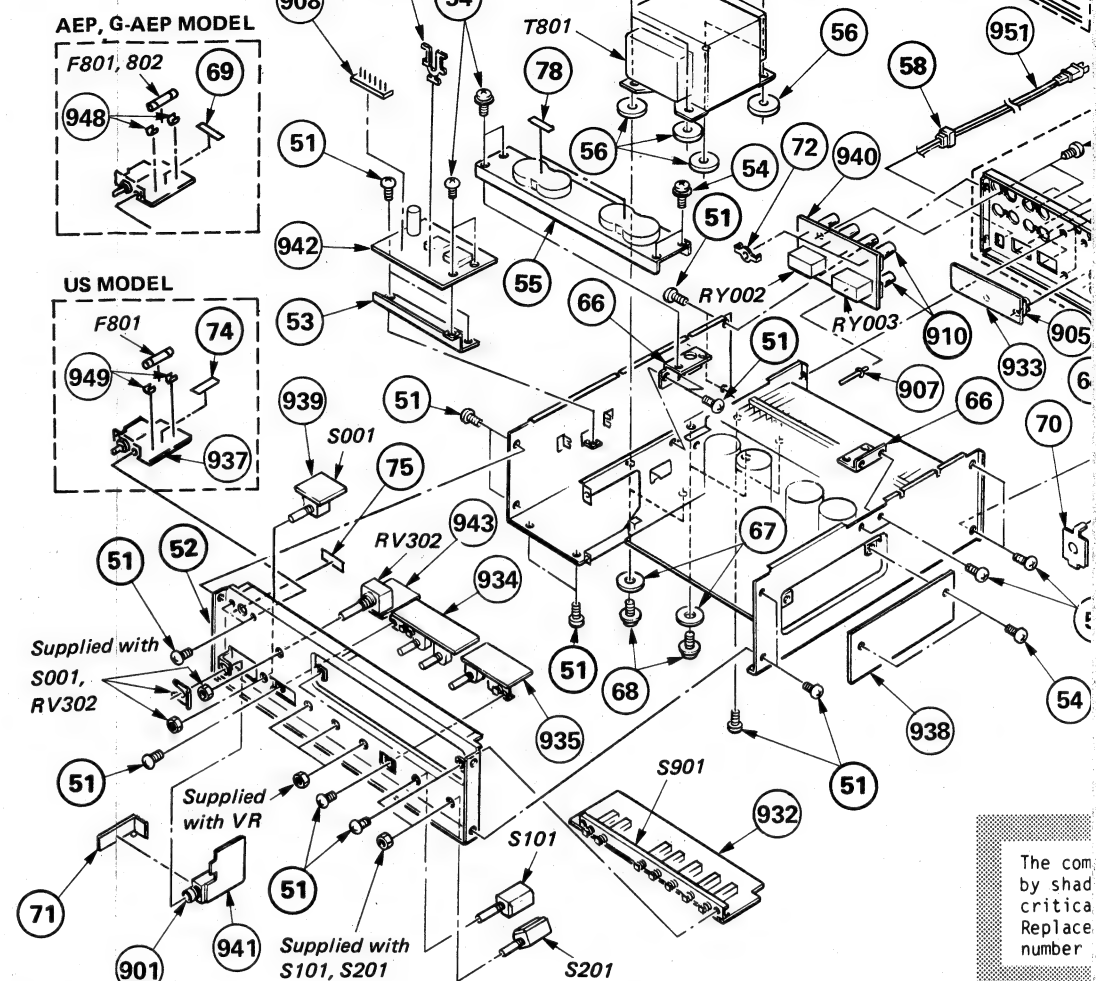
No.	Part No.	Description
1	X-4885-908-1	KNOB (NA-50) ASSY, R
2	*4-901-919-00	HOUSE, LED LAMP
3	4-885-971-01	KNOB (NA-25), R
4	4-885-972-01	KNOB (NA-25), FLAT
5	4-885-956-01	KNOB, PUSH
6	3-533-938-00	CLOTH
7	7-685-751-09	SCREW +BVTT 3X6 (S)
8	X-4885-913-1	T.KNOB ASSY
9	4-866-652-00	SPRING, COMPRESSION
10	4-862-338-00	RING, STOPPER
11	9-911-845-XX	CUSHION, COUNTER
12	4-848-642-00	CUSHION, VIBRATION
13	X-4885-901-0	KNOB ASSY, POWER
14	4-889-321-11	SCREW
15	*4-901-907-01	CUSHION
16	3-831-441-XX	CUSHION, SPEAKER
17	4-885-965-01	CASE

No.	Part No.	Description
18	3-703-249-11	SCREW, S TIGHT, +PTTWH 3X6
19	*4-885-983-21	SHEET
20	*4-901-907-11	CUSHION
21	*4-885-967-01	PLATE, BOTTOM
22	4-885-985-01	LEG
23	7-685-872-09	SCREW +BVTT 3X8 (S)
24	7-688-004-12	W 4, MIDDLE
25	*4-885-983-01	SHEET
26	X-4885-914-3	PANEL ASSY
27	3-304-974-01	EMBLEM, SONY
28	*4-905-210-01	HOLDER, LED
29	2-267-020-00	SPRING, COMPRESSION
30	3-703-710-41	STICKER, SONY SYMBOL (12)
31	4-889-813-00	STICKER (C)
32	4-866-342-00	JOINT (B), KNOB
33	*1-614-326-11	PC BOARD, LED
34	*1-614-295-11	PC BOARD, LED (F)

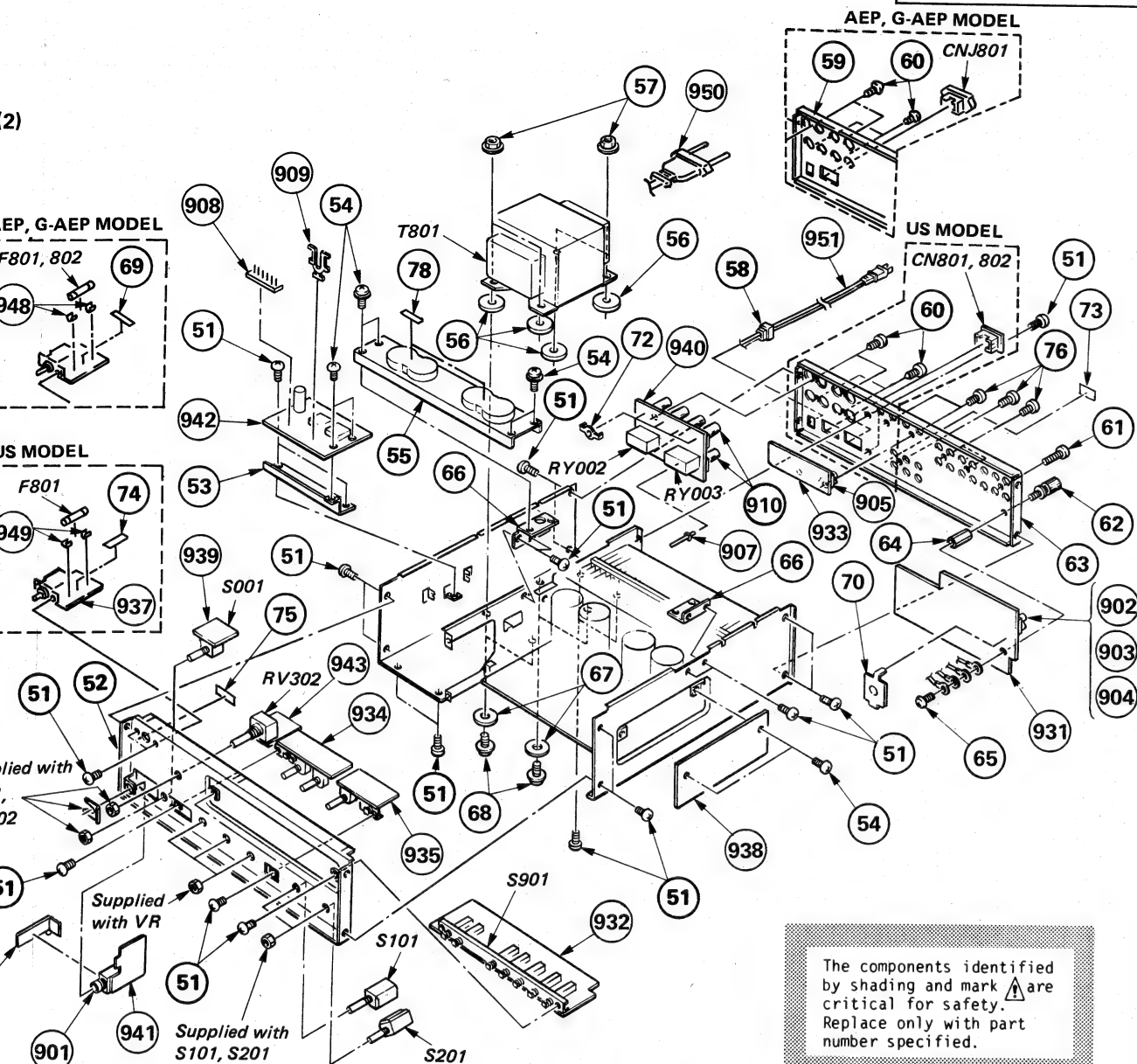
Remarks

29

(2)

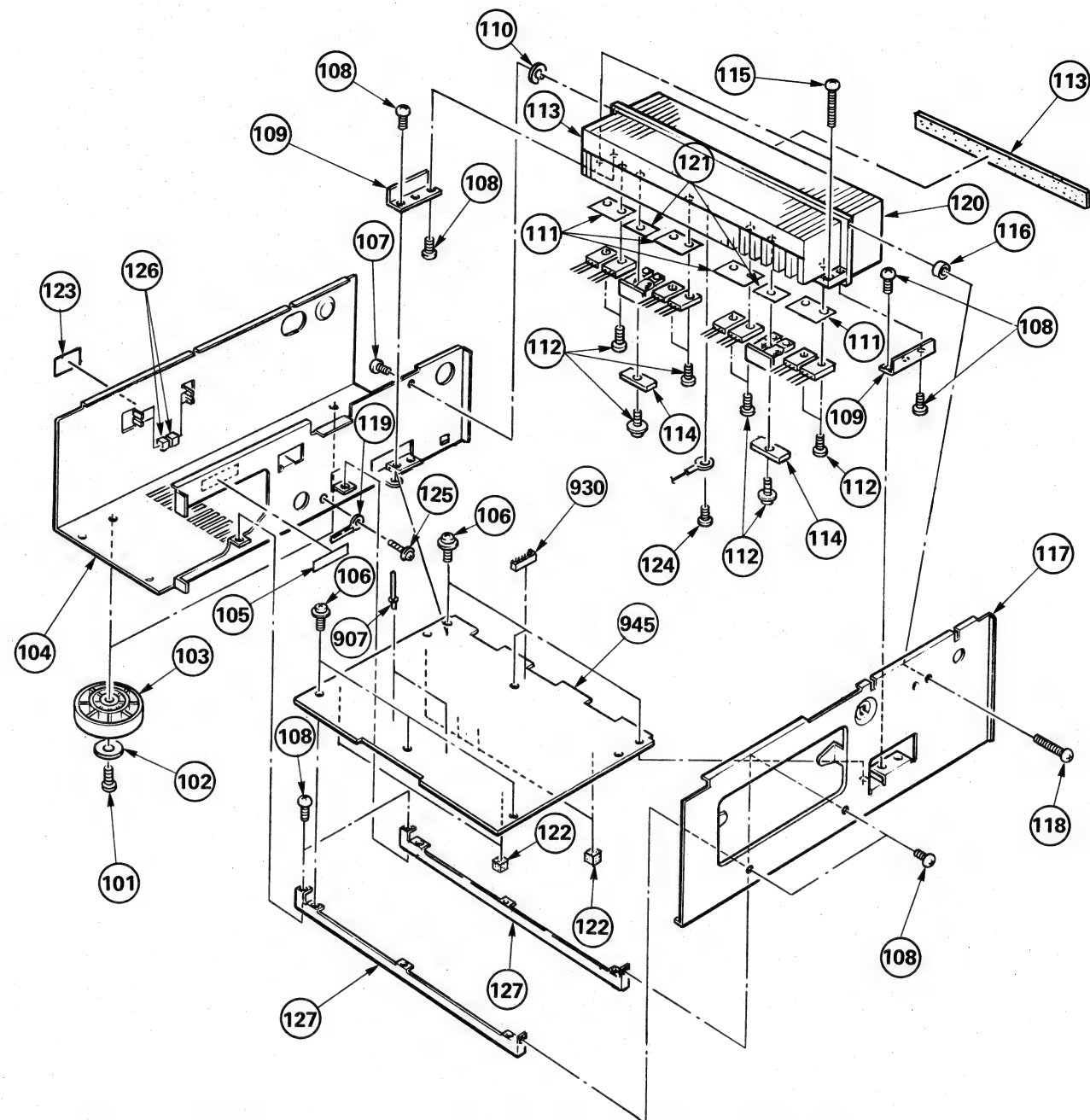


No.	Part No.	Description	Remarks	No.	Part No.	Description
51	7-685-751-09	SCREW +BVTT 3X6 (S)		901	1-507-669-00	JACK (HEADPHONES)
52	*4-885-993-31	CHASSIS, SUB		902	1-507-830-00	JACK, PIN 4P (PHON)
53	*4-885-980-01	REINFORCEMENT		903	1-507-830-21	JACK, PIN 4P (TAPE)

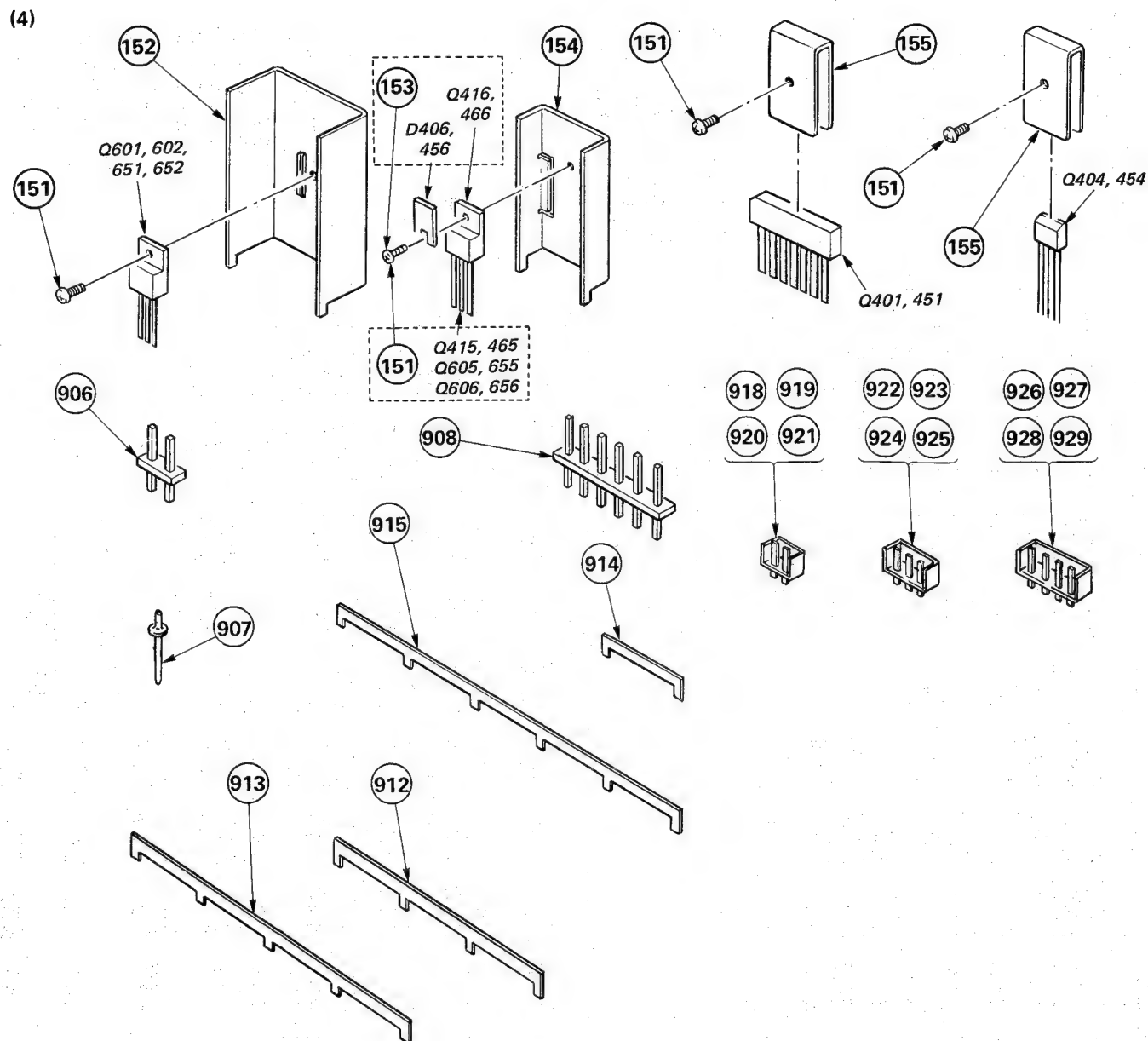


No.	Description	Remarks	No.	Part No.	Description	Remarks
5-751-09	SCREW +BVTT 3X6 (S)		901	1-507-669-00	JACK (HEADPHONES)	
5-993-31	CHASSIS, SUB		902	1-507-830-00	JACK, PIN 4P (PHONO, TUNER)	
5-980-01	REINFORCEMENT		903	1-507-830-21	JACK, PIN 4P (TAPE RECORDER 2)	
3-249-11	SCREW, S TIGHT, +PTWH 3X6		904	1-507-831-00	JACK, PIN 6P (TAPE RECORDER 1 CD)	
5-988-01	HOLDER				(AUDIO IN, OUT)	
5-984-01	WASHER		905	1-562-916-11	JACK, PIN 2P (VIDEO 1, VIDEO 2, MONITOR)	
0-368-00	NUT (M4), WASHER		906	1-508-809-00	BASE POST (14MM) 2P	
3-244-00	BUSHING (2104), CORD		907	1-535-108-00	GT PIN	
5-969-31	(AEP, G-AEP)...PLATE, JACK		908	*1-535-119-00	TERMINAL	
5-646-79	SCREW +BVTP 3X8 TYPE2 N-S		909	*1-535-444-00	TERMINAL	
7-711-21	SCREW, TERMINAL, CLAW, + BVTP		910	1-536-767-00	TERMINAL BOARD, SPEAKER	
54-207-0	TERMINAL ASSY, GROUND		931	*1-614-290-11	PC BOARD, INPUT	
5-969-22	(US)...PLATE, JACK		932	*1-614-291-11	PC BOARD, FUNCTION	
0-622-51	SUPPORT (M3), HEXAGON		933	*1-614-292-11	PC BOARD, VIDEO	
9-121-21	SCREW, TR		934	*1-614-293-11	PC BOARD, TONE	
5-981-11	BRACKET		935	*1-614-294-11	PC BOARD, BALANCE	
0-931-31	SPACER, SHAFT, DRUM, HEAD		937	*1-615-518-11	(AEP, G-AEP)...PC BOARD, AC SWITCH	
2-964-09	SCREW +PSW 4X14				(US)...PC BOARD, AC SWITCH	
1-948-19	(AEP, G-AEP)...LABEL, FUSE		938	*1-614-320-11	PC BOARD, EQ	
5-639-00	PLATE, GROUND		939	*1-614-321-11	PC BOARD, SP SWITCH	
4-909-01	PLATE (A), SHIELD		940	*1-614-322-11	PC BOARD, SP TERMINAL	
3-416-11	PLATE, FIXED, CAP		941	*1-614-323-11	PC BOARD, HEADPHONE	
8-817-01	(US)...LABEL, MODEL NUMBER (U2)		942	*1-614-324-11	PC BOARD, PS	
8-818-01	(AEP)...LABEL, MODEL NUMBER (AE1)		943	*1-614-325-11	PC BOARD, VR	
8-819-01	(G-AEP)...LABEL, MODEL NUMBER (AE4)		948	*1-533-131-00	(AEP, G-AEP)...HOLDER, FUSE	
1-946-28	(US)...LABEL, FUSE		949	1-517-072-00	(US)...LAMP HOLDER	
8-826-01	(AEP, G-AEP)...SPACER, INSULATING		950	*1-555-795-00	(AEP, G-AEP)...CORD, POWER	
5-647-79	SCREW +BVTP 3X10 TYPE2 N-S		951	*1-557-577-11	(US)...CORD, POWER	
2-427-00	CUSHION					

(3)



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
101	7-685-872-09	SCREW +BVTT 3X8 (S)		117	*4-885-963-01	PLATE, SIDE, RIGHT	
102	7-688-004-12	W 4, MIDDLE		118	7-685-649-19	SCREW +BVTP 3X14 TYPE2 N-S	
103	4-885-985-01	LEG		119	*3-701-822-00	HOLDER, WIRE	
104	*4-885-966-21	PLATE, SIDE, LEFT		120	*4-885-994-01	HEAT SINK	
105	*3-701-030-00	LABEL, SERIAL NUMBER		121	4-885-999-01	SHEET, INSULATING	
106	3-703-249-11	SCREW, S TIGHT, +PTWH 3X6		122	*4-908-810-12	CUSHION	
107	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S		123	*3-703-044-26	(US)...LABEL, CAUTION	
108	7-685-751-09	SCREW +BVTT 3X6 (S)		124	7-682-561-10	SCREW +B 4X8	
109	*4-885-982-01	BRACKET, HEAT SINK		129	*4-889-824-00	CHANNEL	
110	4-908-811-01	SPACER		130	9-911-845-XX	CUSHION, COUNTER	
111	4-901-949-01	SHEET, INSULATING		131	4-908-816-11	SCREW (3.5X6) (G), TAPPING	
112	2-259-121-21	SCREW, TR		907	1-535-108-00	GT PIN	
113	*4-885-983-11	SHEET		945	*A-4388-461-A	(US, AEP)...MOUNTED PCB, MAIN	
114	*4-879-920-00	SPACER, HEAT SINK			*A-4388-462-A	(G-AEP)...MOUNTED PCB, MAIN	
115	7-685-876-09	SCREW +BVTT 3X16 (S)		930	*1-564-508-11	PLUG, CONNECTOR 5P	
116	4-908-809-01	SPACER					



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
151	2-259-121-00	SCREW, TR		918	*1-564-505-11	PLUG, CONNECTOR 2P (WHITE)	
152	*4-880-403-11	HEAT SINK		919	*1-564-505-21	PLUG, CONNECTOR 2P (BLACK)	
153	2-259-121-11	SCREW, TR		920	*1-564-505-31	PLUG, CONNECTOR 2P (RED)	
154	*3-309-144-01	HEAT SINK		921	*1-564-505-41	PLUG, CONNECTOR 2P (YELLOW)	
155	*4-866-080-11	HEAT SINK		922	*1-564-506-11	PLUG, CONNECTOR 3P (WHITE)	
906	*1-508-809-00	BASE POST (14MM) 2P		923	*1-564-506-21	PLUG, CONNECTOR 3P (BLACK)	
907	1-535-108-00	GT PIN		924	*1-564-506-31	PLUG, CONNECTOR 3P (RED)	
908	*1-535-119-00	TERMINAL		925	*1-564-506-41	PLUG, CONNECTOR 3P (YELLOW)	
912	*1-560-242-21	BUS BAR 4P		926	*1-564-507-11	PLUG, CONNECTOR 4P (WHITE)	
913	*1-560-242-31	BUS BAR 5P		927	*1-564-507-21	PLUG, CONNECTOR 4P (BLACK)	
914	*1-560-242-61	BUS BAR 2P		928	*1-564-507-31	PLUG, CONNECTOR 4P (RED)	
915	*1-560-242-71	BUS BAR 6P		929	*1-564-507-41	PLUG, CONNECTOR 4P (YELLOW)	

## SECTION 6 ELECTRICAL PARTS LIST

### NOTE:

Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

### CAPACITORS:

MF:  $\mu$ F, PF:  $\mu$ F.

### RESISTORS

All resistors are in ohms.  
F: nonflammable

### COILS

MMH: mH, UH:  $\mu$ H

### SEMICONDUCTORS

In each case, U:  $\mu$ , for example:

UA...:  $\mu$ A..., UPA...:  $\mu$ PA..., UPC...:  $\mu$ PC,

UPD...:  $\mu$ PD...

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

### ELECTRICAL PARTS


Ref.No.	Part No.	Description
901	1-507-669-00	JACK (HEADPHONES)
902	1-507-830-00	JACK, PIN 4P (PHONO, TUNER)
903	1-507-830-21	JACK, PIN 4P (TAPE RECORDER 2)
904	1-507-831-00	JACK, PIN 6P (TAPE RECORDER 1 CD) (AUDIO IN, OUT)
905	1-562-916-11	JACK, PIN 2P (VIDEO 1, VIDEO 2, MONITOR)
906	*1-508-809-00	BASE POST (14MM) 2P
907	1-535-108-00	GT PIN
908	*1-535-119-00	TERMINAL
909	*1-535-444-00	TERMINAL
910	1-536-767-00	TERMINAL BOARD, SPEAKER
911	*1-562-251-00	SOCKET, CONNECTOR 6P
912	*1-560-242-21	BUS BAR 4P
913	*1-560-242-31	BUS BAR 5P
914	*1-560-242-61	BUS BAR 2P
915	*1-560-242-71	BUS BAR 6P
916	*1-562-249-00	SOCKET, CONNECTOR 4P
917	*1-562-327-00	SOCKET, CONNECTOR 3P
918	*1-564-505-11	PLUG, CONNECTOR 2P (WHITE)
919	*1-564-505-21	PLUG, CONNECTOR 2P (BLACK)
920	*1-564-505-31	PLUG, CONNECTOR 2P (RED)
921	*1-564-505-41	PLUG, CONNECTOR 2P (YELLOW)
922	*1-564-506-11	PLUG, CONNECTOR 3P (WHITE)
923	*1-564-506-21	PLUG, CONNECTOR 3P (BLACK)
924	*1-564-506-31	PLUG, CONNECTOR 3P (RED)
925	*1-564-506-41	PLUG, CONNECTOR 3P (YELLOW)
926	*1-564-507-11	PLUG, CONNECTOR 4P (WHITE)
927	*1-564-507-21	PLUG, CONNECTOR 4P (BLACK)
928	*1-564-507-31	PLUG, CONNECTOR 4P (RED)
929	*1-564-507-41	PLUG, CONNECTOR 4P (YELLOW)
930	*1-564-508-11	PLUG, CONNECTOR 5P
931	*1-614-290-11	PC BOARD, INPUT
932	*1-614-291-11	PC BOARD, FUNCTION
933	*1-614-292-11	PC BOARD, VIDEO
934	*1-614-293-11	PC BOARD, TONE
935	*1-614-294-11	PC BOARD, BALANCE
937	*1-615-518-11	(AEP, G-AEP)...PC BOARD, AC SWITCH
	*1-614-296-11	(US)...PC BOARD, AC SWITCH
938	*1-614-320-11	PC BOARD, EQ
939	*1-614-321-11	PC BOARD, SP SWITCH
940	*1-614-322-11	PC BOARD, SP TERMINAL
941	*1-614-323-11	PC BOARD, HEADPHONE
942	*1-614-324-11	PC BOARD, PS
943	*1-614-325-11	PC BOARD, VR
944	*1-614-326-11	PC BOARD, LED
945	*A-4388-461-A	(US, AEP)...MOUNTED PCB, MAIN
	*A-4388-462-A	(G-AEP)...MOUNTED PCB, MAIN

### ELECTRICAL PARTS

Ref.No.	Part No.	Description
946	*1-535-115-00	TERMINAL
947	1-535-416-00	(AEP, G-AEP)...TERMINAL
948	*1-533-131-00	(AEP, G-AEP)...HOLDER, FUSE
949	1-517-072-00	(US)...LAMP HOLDER
950	$\Delta$ 1-555-795-00	(AEP, G-AEP)...CORD, POWER
951	$\Delta$ 1-557-577-11	(US)...CORD, POWER
952	*1-614-295-11	PC BOARD, LED (F)
C4	1-130-291-00	FILM 0.0056MF 10% 100V
C001	1-123-334-00	ELECT 220MF 20% 25V
C002	1-106-172-00	MYLAR 0.001MF 5% 50V
C003	1-136-157-00	FILM 0.022MF 5% 50V
C004	1-123-307-00	ELECT 100MF 20% 6.3V
C005	1-123-518-00	ELECT 10MF 20% 63V
C006	1-123-518-00	ELECT 10MF 20% 63V
C101	1-107-294-00	MICA 56PF 5% 100V
C102	1-161-317-00	(G-AEP)...CERAMIC 330PF 10% 50V
C103	1-161-317-00	(G-AEP)...CERAMIC 330PF 10% 50V
C104	1-161-317-00	(G-AEP)...CERAMIC 330PF 10% 50V
C105	1-161-317-00	(G-AEP)...CERAMIC 330PF 10% 50V
C106	1-161-317-00	(G-AEP)...CERAMIC 330PF 10% 50V
C107	1-161-317-00	(G-AEP)...CERAMIC 330PF 10% 50V
C108	1-161-317-00	(G-AEP)...CERAMIC 330PF 10% 50V
C109	1-102-112-00	(G-AEP)...CERAMIC 330PF 10% 50V
C110	1-102-112-00	(G-AEP)...CERAMIC 330PF 10% 50V
C111	1-102-112-00	(G-AEP)...CERAMIC 330PF 10% 50V
C112	1-102-112-00	(G-AEP)...CERAMIC 330PF 10% 50V
C113	1-102-112-00	(G-AEP)...CERAMIC 330PF 10% 50V
C114	1-102-112-00	(G-AEP)...CERAMIC 330PF 10% 50V
C201	1-104-249-11	POLYSTYRENE 330PF 5% 125V
C202	1-104-151-00	POLYSTYRENE 0.0022MF 5% 125V
C203	1-136-324-00	FILM 0.01MF 10% 630V
C204	1-136-324-00	FILM 0.01MF 10% 630V
C206	1-123-360-00	ELECT 100MF 20% 50V
C207	1-136-248-00	FILM 0.056MF 3% 100V
C208	1-136-247-00	FILM 0.016MF 3% 100V
C209	1-124-334-00	ELECT 4.7MF 20% 100V
C211	1-104-151-00	POLYSTYRENE 0.0022MF 5% 125V
C301	1-136-165-00	FILM 0.1MF 5% 50V
C302	1-124-334-00	ELECT 4.7MF 20% 100V
C303	1-104-233-00	POLYSTYRENE 220PF 5% 125V
C304	1-104-233-00	POLYSTYRENE 220PF 5% 125V
C307	1-124-611-51	ELECT 1MF 20% 100V
C308	1-124-611-51	ELECT 1MF 20% 100V
C309	1-136-324-00	FILM 0.01MF 10% 630V
C310	1-136-324-00	FILM 0.01MF 10% 630V
C311	1-129-718-00	FILM 0.022MF 10% 630V

## ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C401	1-104-261-00	POLYSTYRENE	220PF	10%	125V
C402	1-104-262-00	POLYSTYRENE	10PF	10%	125V
C403	1-123-373-00	ELECT	47MF	20%	63V
C404	1-123-374-00	ELECT	100MF	20%	63V
C405	1-123-374-00	ELECT	100MF	20%	63V
C406	1-123-373-00	ELECT	47MF	20%	63V
C408	1-104-263-00	POLYSTYRENE	15PF	10%	125V
C409	1-136-325-00	FILM	0.022MF	10%	630V
C509	1-136-173-00	FILM	0.47MF	5%	50V
C510	1-136-161-00	FILM	0.047MF	5%	50V
C511	1-136-160-00	FILM	0.039MF	5%	50V
C512	1-106-188-00	MYLAR	0.0047MF	10%	50V
C513	1-136-169-00	FILM	0.22MF	5%	50V
C514	1-124-186-00	ELECT	10MF	20%	50V
C601	1-123-359-00	ELECT	47MF	20%	50V
C602	1-123-359-00	ELECT	47MF	20%	50V
C603	1-123-378-00	ELECT	1000MF	20%	63V
C604	1-123-378-00	ELECT	1000MF	20%	63V
C605	1-124-718-51	ELECT	2.2MF	20%	50V
C606	1-124-718-51	ELECT	2.2MF	20%	50V
C607	1-123-378-00	ELECT	1000MF	20%	63V
C608	1-123-378-00	ELECT	1000MF	20%	63V
C609	1-124-724-51	ELECT	47MF	20%	50V
C610	1-124-724-51	ELECT	47MF	20%	50V
C651	1-123-359-00	ELECT	47MF	20%	50V
C652	1-123-359-00	ELECT	47MF	20%	50V
C653	1-123-378-00	ELECT	1000MF	20%	63V
C654	1-123-378-00	ELECT	1000MF	20%	63V
C655	1-124-718-51	ELECT	2.2MF	20%	50V
C656	1-124-718-51	ELECT	2.2MF	20%	50V
C657	1-123-378-00	ELECT	1000MF	20%	63V
C658	1-123-378-00	ELECT	1000MF	20%	63V
C659	1-124-724-51	ELECT	47MF	20%	50V
C660	1-124-724-51	ELECT	47MF	20%	50V
C701	1-130-796-00	FILM	0.47MF	5%	250V
C702	1-130-297-00	FILM	0.01MF	10%	100V
C703	1-123-364-00	ELECT	1000MF	20%	50V
C704	1-123-369-00	ELECT	4.7MF	20%	50V
C711	1-125-382-11	ELECT	10000MF	20%	63V
C712	1-125-382-11	ELECT	10000MF	20%	63V
C751	1-130-796-00	FILM	0.47MF	5%	250V
C752	1-130-297-00	FILM	0.01MF	10%	100V
C761	1-125-382-11	ELECT	10000MF	20%	63V
C762	1-125-382-11	ELECT	10000MF	20%	63V
C801	1-161-744-00	CERAMIC	0.01MF		400V
C802	1-161-744-00	(AEP,G-AEP)...CERAMIC	0.01MF		400V
C901	1-161-494-00	(G-AEP)...CERAMIC	0.022MF	30%	25V
C902	1-161-740-12	(G-AEP)...MICA	470PF	5%	100V
C903	1-161-740-12	(G-AEP)...MICA	470PF	5%	100V
C904	1-161-740-00	(G-AEP)...CERAMIC	470PF	10%	400V
C905	1-161-744-00	(G-AEP)...CERAMIC	10000PF	10%	400V
C906	1-161-744-00	(G-AEP)...CERAMIC	10000PF	10%	400V
C907	1-130-281-00	(G-AEP)...FILM	0.0022MF	5%	100V
C908	1-130-281-00	FILM	0.0022MF	5%	100V
C951	1-161-494-00	CERAMIC	0.022MF	30%	25V

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## ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C952	1-161-740-12	(G-AEP)...MICA	470PF	5%	100V
C953	1-161-740-12	(G-AEP)...MICA	470PF	5%	100V
C954	1-161-740-00	(G-AEP)...CERAMIC	470PF	10%	400V
C955	1-130-281-00	FILM	0.0022MF	5%	100V
C956	1-130-281-00	FILM	0.0022MF	5%	100V
C957	1-130-281-00	(G-AEP)...FILM	0.0022MF	5%	100V
ACNJ801.1-526-794-11		(AEP,G-AEP)...OUTLET, AC			
ACNJ801.1-526-883-00		(US).....OUTLET, AC			
ACNJ802.1-526-883-00		(US).....OUTLET, AC			
D001	8-719-107-94	DIODE 1SS202-1			
D002	8-719-107-94	DIODE 1SS202-1			
D003	8-719-107-94	DIODE 1SS202-1			
D004	8-719-918-47	DIODE GL-5NP5			
D005	8-719-910-01	DIODE HZ20-1			
D006	8-719-910-01	DIODE HZ20-1			
D007	8-719-107-94	DIODE 1SS202-1			
D008	8-719-107-94	DIODE 1SS202-1			
D009	8-719-107-94	DIODE 1SS202-1			
D010	8-719-107-94	DIODE 1SS202-1			
D051	8-719-107-94	DIODE 1SS202-1			
D052	8-719-107-94	DIODE 1SS202-1			
D053	8-719-107-94	DIODE 1SS202-1			
D401	8-719-902-97	DIODE EQA01-06R2			
D402	8-719-100-57	DIODE RD10E-B2			
D403	8-719-200-02	DIODE 10E-2			
D404	8-719-200-02	DIODE 10E-2			
D405	8-719-200-02	DIODE 10E-2			
D406	8-719-300-28	DIODE STV-2H			
D407	8-719-200-02	DIODE 10E-2			
D408	8-719-200-02	DIODE 10E-2			
D409	8-719-200-02	DIODE 10E-2			
D451	8-719-902-97	DIODE EQA01-06R2			
D452	8-719-100-57	DIODE RD10E-B2			
D453	8-719-200-02	DIODE 10E-2			
D454	8-719-200-02	DIODE 10E-2			
D455	8-719-200-02	DIODE 10E-2			
D456	8-719-300-28	DIODE STV-2H			
D457	8-719-200-02	DIODE 10E-2			
D458	8-719-200-02	DIODE 10E-2			
D459	8-719-200-02	DIODE 10E-2			
D451	8-719-902-97	DIODE EQA01-06R2			
D452	8-719-100-57	DIODE RD10E-B2			
D601	8-719-931-35	DIODE EQA01-35			
D602	8-719-931-35	DIODE EQA01-35			
D603	8-719-902-97	DIODE EQA01-06R2			
D604	8-719-902-97	DIODE EQA01-06R2			
D651	8-719-931-35	DIODE EQA01-35			
D652	8-719-931-35	DIODE EQA01-35			
D653	8-719-902-97	DIODE EQA01-06R2			
D654	8-719-902-97	DIODE EQA01-06R2			
D701	8-719-200-43	DIODE PB112E			
D702	8-719-511-20	DIODE S1VB20			
D703	8-719-200-02	DIODE 10E-2			
D707	8-719-931-06	DIODE EQB01-06			
D751	8-719-200-43	DIODE PB112E			
D901	8-719-918-57	DIODE GL-5NG27			
D902	8-719-918-57	DIODE GL-5NG27			

## ELECTRICAL PARTS

Ref.No.	Part No.	Description
D903	8-719-918-57	DIODE GL-5NG27
D904	8-719-918-57	DIODE GL-5NG27
D905	8-719-918-57	DIODE GL-5NG27
D906	8-719-918-57	DIODE GL-5NG27
D907	8-719-918-57	DIODE GL-5NG27
D908	8-719-918-57	DIODE GL-5NG27
D909	8-719-918-57	DIODE GL-5NG27
D910	8-719-918-57	DIODE GL-5NG27
D911	8-719-918-57	DIODE GL-5NG27
D912	8-719-918-57	DIODE GL-5NG27
D913	8-719-918-57	DIODE GL-5NG27
D914	8-719-918-57	DIODE GL-5NG27
F801	△.1-532-237-00	(AEP,G-AEP)...FUSE, TIME-LAG
F801	△.1-532-509-00	(US)....FUSE, GLASS TUBE 6.3A
F802	△.1-532-286-00	(AEP,G-AEP)...FUSE, TIME-LAG
IC001	8-759-101-23	IC UPC1237H
IC201	8-759-905-42	IC NE5534P
IC251	8-759-905-42	IC NE5534P
IC301	8-759-801-74	IC CX20198
IC302	8-759-981-00	IC TL081CP
IC351	8-759-801-74	IC CX20198
IC352	8-759-981-00	IC TL081CP
L101	1-413-101-00	COIL, INPUT
L102	1-413-101-00	COIL, INPUT
L151	1-413-101-00	COIL, INPUT
L152	1-413-101-00	COIL, INPUT
L401	*1-422-031-00	COIL, AIRCORE
L451	*1-422-031-00	COIL, AIRCORE
Q001	8-729-173-37	TRANSISTOR 2SA733-P
Q002	8-762-020-00	TRANSISTOR 2SA835
Q003	8-762-020-00	TRANSISTOR 2SA835
Q004	8-729-173-37	TRANSISTOR 2SA733-P
Q005	8-729-194-57	TRANSISTOR 2SC945-P
Q006	8-729-194-57	TRANSISTOR 2SC945-P
Q007	8-729-194-57	TRANSISTOR 2SC945-P
Q051	8-729-173-37	TRANSISTOR 2SA733-P
Q201	8-729-201-28	TRANSISTOR 2SK146-BL
Q202	8-729-168-22	TRANSISTOR 2SC2682
Q203	8-729-194-57	TRANSISTOR 2SC945-P
Q204	8-729-224-62	TRANSISTOR 2SK246-GR
Q251	8-729-201-28	TRANSISTOR 2SK146-BL
Q252	8-729-168-22	TRANSISTOR 2SC2682
Q253	8-729-194-57	TRANSISTOR 2SC945-P
Q254	8-729-224-62	TRANSISTOR 2SK246-GR
Q401	8-729-103-66	TRANSISTOR UPA68H-M
Q402	8-729-907-11	TRANSISTOR 2SC2071
Q403	8-729-907-11	TRANSISTOR 2SC2071
Q404	8-729-699-51	TRANSISTOR 2SA995
Q405	8-729-114-22	TRANSISTOR 2SA1142
Q406	8-729-104-91	TRANSISTOR 2SA1383-Q
Q407	8-729-104-18	TRANSISTOR 2SA3514-Q
Q408	8-729-104-18	TRANSISTOR 2SA3514-Q
Q409	8-729-201-56	TRANSISTOR 2SK246-GR2
Q410	8-729-201-56	TRANSISTOR 2SK246-GR2
Q411	8-729-907-11	TRANSISTOR 2SC2071

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## ELECTRICAL PARTS

Ref.No.	Part No.	Description
Q412	8-729-993-92	TRANSISTOR 2SA939
Q413	8-729-104-18	TRANSISTOR 2SA3514-Q
Q414	8-729-104-91	TRANSISTOR 2SA1383-Q
Q415	8-729-127-53	TRANSISTOR 2SC2275-P
Q416	8-729-118-53	TRANSISTOR 2SA985-P
Q417	8-729-301-82	TRANSISTOR 2SC3519-Y
Q418	8-729-301-86	TRANSISTOR 2SA1386-Y
Q419	8-729-301-82	TRANSISTOR 2SC3519-Y
Q420	8-729-301-86	TRANSISTOR 2SA1386-Y
Q451	8-729-103-66	TRANSISTOR UPA68H-M
Q452	8-729-907-11	TRANSISTOR 2SC2071
Q453	8-729-907-11	TRANSISTOR 2SC2071
Q454	8-729-699-51	TRANSISTOR 2SA995
Q455	8-729-114-22	TRANSISTOR 2SA1142
Q456	8-729-104-91	TRANSISTOR 2SA1383-Q
Q457	8-729-104-18	TRANSISTOR 2SA3514-Q
Q458	8-729-104-18	TRANSISTOR 2SA3514-Q
Q459	8-729-201-56	TRANSISTOR 2SK246-GR2
Q460	8-729-201-56	TRANSISTOR 2SK246-GR2
Q461	8-729-907-11	TRANSISTOR 2SC2071
Q462	8-729-993-92	TRANSISTOR 2SA939
Q463	8-729-104-18	TRANSISTOR 2SA3514-Q
Q464	8-729-104-91	TRANSISTOR 2SA1383-Q
Q465	8-729-127-53	TRANSISTOR 2SC2275-P
Q466	8-729-118-53	TRANSISTOR 2SA985-P
Q467	8-729-301-82	TRANSISTOR 2SC3519-Y
Q468	8-729-301-86	TRANSISTOR 2SA1386-Y
Q469	8-729-301-82	TRANSISTOR 2SC3519-Y
Q470	8-729-301-86	TRANSISTOR 2SA1386-Y
Q601	8-729-127-53	TRANSISTOR 2SC2275-P
Q602	8-729-118-53	TRANSISTOR 2SA985-P
Q603	8-729-224-62	TRANSISTOR 2SK246-GR
Q604	8-729-224-62	TRANSISTOR 2SK246-GR
Q605	8-729-127-53	TRANSISTOR 2SC2275-P
Q606	8-729-118-53	TRANSISTOR 2SA985-P
Q607	8-729-201-56	TRANSISTOR 2SK246-GR
Q608	8-729-201-56	TRANSISTOR 2SK246-GR
Q609	8-729-907-11	TRANSISTOR 2SC2071
Q610	8-729-993-92	TRANSISTOR 2SA939
Q651	8-729-127-53	TRANSISTOR 2SC2275-P
Q652	8-729-118-53	TRANSISTOR 2SA985-P
Q653	8-729-224-62	TRANSISTOR 2SK246-GR
Q654	8-729-224-62	TRANSISTOR 2SK246-GR
Q655	8-729-127-53	TRANSISTOR 2SC2275-P
Q656	8-729-118-53	TRANSISTOR 2SA985-P
Q657	8-729-201-56	TRANSISTOR 2SK246-GR
Q658	8-729-201-56	TRANSISTOR 2SK246-GR
Q659	8-729-907-11	TRANSISTOR 2SC2071
Q660	8-729-993-92	TRANSISTOR 2SA939
R001	1-247-268-00	CARBON 15K 5% 1/3W
R002	1-247-268-00	CARBON 15K 5% 1/3W
R003	△.1-206-658-00	METAL OXIDE 560 5% 2W F
R004	△.1-206-658-00	METAL OXIDE 560 5% 2W F
R005	1-244-933-00	CARBON 330K 5% 1/3W
R006	1-244-933-00	CARBON 330K 5% 1/3W
R007	1-246-529-00	CARBON 220K 5% 1/4W
R008	1-247-155-00	CARBON 10K 5% 1/4W
R009	1-247-268-00	CARBON 15K 5% 1/2W

## ELECTRICAL PARTS

Ref.No.	Part No.	Description				
R010	1-246-530-00	CARBON	240K	5%	1/4W	
R011	1-247-163-00	CARBON	22K	5%	1/4W	
R012	1-247-147-00	CARBON	4.7K	5%	1/4W	
R013	△.1-206-658-00	METAL OXIDE	560	5%	2W	F
R014	1-247-163-00	CARBON	22K	5%	1/4W	
R015	1-247-147-00	CARBON	4.7K	5%	1/4W	
R016	1-247-163-00	CARBON	22K	5%	1/4W	
R017	1-247-147-00	CARBON	4.7K	5%	1/4W	
R018	△.1-206-674-00	METAL OXIDE	2.7K	5%	2W	F
R019	1-247-165-00	CARBON	27K	5%	1/4W	
R020	1-247-171-00	CARBON	47K	5%	1/4W	
R021	△.1-213-151-11	METAL OXIDE	4.7K	5%	1W	F
R022	1-247-256-00	CARBON	4.7K	5%	1/2W	
R023	1-247-147-00	CARBON	4.7K	5%	1/4W	
R024	1-247-717-11	CARBON	2.2K	5%	1/4W	
R025	1-247-147-00	CARBON	4.7K	5%	1/4W	
R101	1-246-545-00	CARBON	1M	5%	1/4W	
R102	1-246-545-00	CARBON	1M	5%	1/4W	
R103	1-246-545-00	CARBON	1M	5%	1/4W	
R104	1-246-545-00	CARBON	1M	5%	1/4W	
R105	1-246-545-00	CARBON	1M	5%	1/4W	
R106	1-246-545-00	CARBON	1M	5%	1/4W	
R107	1-247-131-00	CARBON	1K	5%	1/4W	
R108	1-247-131-00	CARBON	1K	5%	1/4W	
R109	1-247-131-00	CARBON	1K	5%	1/4W	
R110	1-247-123-00	(G-AEP)...CARBON	470	5%	1/4W	
R111	1-247-123-00	(G-AEP)...CARBON	470	5%	1/4W	
R112	1-247-123-00	(G-AEP)...CARBON	470	5%	1/4W	
R113	1-247-123-00	(G-AEP)...CARBON	470	5%	1/4W	
R114	1-247-123-00	(G-AEP)...CARBON	470	5%	1/4W	
R115	1-247-119-00	(G-AEP)...CARBON	330	5%	1/4W	
R116	1-247-119-00	(G-AEP)...CARBON	330	5%	1/4W	
R117	1-247-123-00	(G-AEP)...CARBON	470	5%	1/4W	
R201	1-247-280-00	CARBON	47K	5%	1/3W	
R202	1-247-228-00	CARBON	330	5%	1/3W	
R203	1-247-216-00	CARBON	100	5%	1/3W	
R204	1-249-176-51	CARBON	39	5%	1/3W	
R205	1-249-207-51	CARBON	750	5%	1/3W	
R206	1-249-207-51	CARBON	750	5%	1/3W	
R208	1-249-185-51	CARBON	91	5%	1/3W	
R209	1-247-228-00	CARBON	330	5%	1/3W	
R210	1-249-176-51	CARBON	39	5%	1/3W	
R211	1-247-224-00	CARBON	220	5%	1/3W	
R212	1-249-298-11	CARBON	4.7M	5%	1/3W	
R213	1-247-216-00	CARBON	100	5%	1/3W	
R214	1-214-907-00	METAL	56K	1%	1/2W	
R215	1-214-880-00	METAL	4.7K	1%	1/2W	
R216	1-214-840-00	METAL	100	1%	1/2W	
R217	1-214-812-00	METAL	6.8	1%	1/2W	
R218	1-247-224-00	CARBON	220	5%	1/3W	
R301	1-244-937-00	CARBON	470K	5%	1/3W	
R302	1-247-232-00	CARBON	470	5%	1/3W	
R303	1-247-212-00	CARBON	68	5%	1/3W	
R304	1-247-264-00	CARBON	10K	5%	1/3W	

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## ELECTRICAL PARTS

Ref.No.	Part No.	Description				
R305	1-247-240-00	CARBON	1K	5%	1/3W	
R306	1-214-868-00	METAL	1.5K	1%	1/2W	
R307	1-214-862-00	METAL	820	1%	1/2W	
R308	1-214-862-00	METAL	820	1%	1/2W	
R309	1-244-937-00	CARBON	470K	5%	1/3W	
R310	1-247-212-00	CARBON	68	5%	1/3W	
R311	1-247-228-00	CARBON	330	5%	1/3W	
R312	1-214-868-00	METAL	1.5K	1%	1/2W	
R313	1-244-937-00	CARBON	470K	5%	1/3W	
R401	1-244-945-00	CARBON	1M	5%	1/3W	
R402	△.1-212-990-00	FUSIBLE	220	5%	1/2W	F
R403	△.1-212-990-00	FUSIBLE	220	5%	1/2W	F
R404	1-247-270-00	CARBON	18K	5%	1/3W	
R405	1-247-224-00	CARBON	220	5%	1/3W	
R406	1-247-236-00	CARBON	680	5%	1/3W	
R407	1-247-224-00	CARBON	220	5%	1/3W	
R409	1-247-200-00	CARBON	22	5%	1/3W	
R410	1-247-200-00	CARBON	22	5%	1/3W	
R411	△.1-247-131-00	CARBON	1K	5%	1/4W	F
R412	1-247-256-00	CARBON	4.7K	5%	1/3W	
R413	△.1-217-446-00	FUSIBLE	100	5%	1/2W	F
R414	1-247-224-00	CARBON	220	5%	1/3W	
R415	1-247-274-00	CARBON	27K	5%	1/2W	
R416	△.1-217-446-00	FUSIBLE	100	5%	1/2W	F
R417	1-214-867-00	METAL	1.3K	1%	1/2W	
R418	1-214-872-00	METAL	2.2K	1%	1/2W	
R419	1-214-901-00	METAL	33K	1%	1/2W	
R420	1-247-244-00	CARBON	1.5K	5%	1/3W	
R421	1-247-243-00	CARBON	1.3K	5%	1/3W	
R422	1-247-234-00	CARBON	560	5%	1/3W	
R425	△.1-217-454-00	FUSIBLE	470	5%	1/2W	F
R426	△.1-212-974-00	FUSIBLE	47	5%	1/2W	F
R427	△.1-212-974-00	FUSIBLE	47	5%	1/2W	F
R428	△.1-206-640-00	METAL OXIDE	100	5%	2W	F
R429	△.1-217-434-00	FUSIBLE	10	5%	1/2W	F
R430	△.1-217-434-00	FUSIBLE	10	5%	1/2W	F
R431	△.1-217-434-00	FUSIBLE	10	5%	1/2W	F
R432	△.1-217-434-00	FUSIBLE	10	5%	1/2W	F
R433	1-205-647-00	CEMENTED	0.22	5%	5W	
R434	1-205-647-00	CEMENTED	0.22	5%	5W	
R435	△.1-247-135-00	CARBON	1.5K	5%	1/4W	F
R436	△.1-247-135-00	CARBON	1.5K	5%	1/4W	F
R437	1-205-647-00	CEMENTED	0.22	5%	5W	
R438	1-205-647-00	CEMENTED	0.22	5%	5W	
R439	1-217-433-00	FUSIBLE	8.2	5%	1/2W	F
R440	1-217-582-00	CEMENTED	8.2	10%	5W	
R441	△.1-206-658-00	METAL OXIDE	560	5%	2W	F
R442	1-247-234-00	CARBON	560	5%	1/3W	
R443	1-247-234-00	CARBON	560	5%	1/3W	
R444	△.1-212-865-11	FUSIBLE	22	5%	1/2W	F
R452	△.1-212-990-00	FUSIBLE	220	5%	1/2W	F
R453	△.1-212-990-00	FUSIBLE	220	5%	1/2W	F
R461	△.1-247-131-00	CARBON	1K	5%	1/4W	F
R463	△.1-217-446-00	FUSIBLE	100	5%	1/2W	F
R466	△.1-217-446-00	FUSIBLE	100	5%	1/2W	F
R475	△.1-217-454-00	FUSIBLE	470	5%	1/2W	F
R476	△.1-212-974-00	FUSIBLE	47	5%	1/2W	F
R477	△.1-212-974-00	FUSIBLE	47	5%	1/2W	F

## ELECTRICAL PARTS

Ref.No.	Part No.	Description				
R478	△.1-206-640-00	METAL OXIDE	100	5%	2W	F
R479	△.1-217-434-00	FUSIBLE	10	5%	1/2W	F
R480	△.1-217-434-00	FUSIBLE	10	5%	1/2W	F
R481	△.1-217-434-00	FUSIBLE	10	5%	1/2W	F
R482	△.1-217-434-00	FUSIBLE	10	5%	1/2W	F
R485	△.1-247-135-00	CARBON	1.5K	5%	1/4W	F
R486	△.1-247-135-00	CARBON	1.5K	5%	1/4W	F
R489	1-217-433-00	FUSIBLE	8.2	5%	1/2W	F
R491	△.1-206-658-00	METAL OXIDE	560	5%	2W	F
R494	△.1-212-865-11	FUSIBLE	22	5%	1/2W	F
R517	1-246-545-00	CARBON	1M	5%	1/4W	
R518	1-247-119-00	CARBON	330	5%	1/4W	
R520	1-247-151-00	CARBON	6.8K	5%	1/4W	
R521	1-247-138-00	CARBON	2K	5%	1/4W	
R523	1-247-149-00	CARBON	5.6K	5%	1/4W	
R548	1-247-128-00	CARBON	750	5%	1/4W	
R601	1-247-224-00	CARBON	220	5%	1/3W	
R602	1-247-224-00	CARBON	220	5%	1/3W	
R603	1-247-234-00	CARBON	560	5%	1/3W	
R604	1-247-234-00	CARBON	560	5%	1/3W	
R605	1-214-885-00	METAL	7.5K	1%	1/2W	
R606	1-214-884-00	METAL	6.8K	1%	1/2W	
R607	1-214-860-00	METAL	680	1%	1/2W	
R608	1-214-861-00	METAL	750	1%	1/2W	
R651	1-247-224-00	CARBON	220	5%	1/3W	
R652	1-247-224-00	CARBON	220	5%	1/3W	
R653	1-247-234-00	CARBON	560	5%	1/3W	
R654	1-247-234-00	CARBON	560	5%	1/3W	
R655	1-214-885-00	METAL	7.5K	1%	1/2W	
R656	1-214-884-00	METAL	6.8K	1%	1/2W	
R657	1-214-860-00	METAL	680	1%	1/2W	
R658	1-214-861-00	METAL	750	1%	1/2W	
R701	△.1-212-974-00	FUSIBLE	47	5%	1/2W	F
R702	△.1-247-188-00	CARBON	4.7	5%	1/2W	F
R703	△.1-247-272-00	CARBON	22K	5%	1/2W	F
R704	△.1-206-661-11	METAL OXIDE	750	5%	2W	F
R705	△.1-206-661-11	METAL OXIDE	750	5%	2W	F
R706	△.1-206-660-00	METAL OXIDE	680	5%	2W	F
R707	△.1-206-656-00	METAL OXIDE	470	5%	2W	F
R751	△.1-212-974-00	FUSIBLE	47	5%	1/2W	F
R808	△.1-212-950-00	FUSIBLE	4.7	5%	1/2W	F
R809	△.1-212-950-00	FUSIBLE	4.7	5%	1/2W	F
R858	△.1-212-950-00	FUSIBLE	4.7	5%	1/2W	F
R859	△.1-212-950-00	FUSIBLE	4.7	5%	1/2W	F
RT301	1-224-253-XX	RES, ADJ, SOLID 22K				
RT351	1-224-253-XX	RES, ADJ, SOLID 22K				
RT401	1-224-550-21	RES, ADJ, METAL GLAZE 220				
RT402	1-224-248-XX	RES, ADJ, SOLID 470				
RT451	1-224-550-21	RES, ADJ, METAL GLAZE 220				
RT452	1-224-248-XX	RES, ADJ, SOLID 470				
RV301	1-230-654-11	RES, VAR, CARBON 100K/100K (BALANCE)				
RV302	1-230-657-11	RES, VAR, CARBON 10K/10K (ATTENUATOR)				
RV351	1-230-654-11	RES, VAR, CARBON 100K/100K (BALANCE)				
RV352	1-230-657-11	RES, VAR, CARBON 10K/10K (ATTENUATOR)				
RV501	1-230-655-11	RES, VAR, CARBON 24K/24K (BASS)				
RV502	1-230-656-11	RES, VAR, CARBON 37K/37K (TREBLE)				

## ELECTRICAL PARTS

Ref.No.	Part No.	Description
RV551	1-230-655-11	RES, VAR, CARBON 24K/24K (BASS)
RV552	1-230-656-11	RES, VAR, CARBON 37K/37K (TREBLE)
RY001	1-515-503-00	RELAY
RY002	1-515-356-00	RELAY
RY003	1-515-356-00	RELAY
RY004	1-515-495-00	RELAY
S001	1-570-093-11	SWITCH, ROTARY (SPEAKERS)
S101	1-570-081-11	SWITCH, ROTARY SLIDE (AUDIO REC OUT SELECTOR)
S201	1-570-082-11	SWITCH, ROTARY SLIDE (REMOTE) (CARTRIDGE LOAD)
S301	1-570-078-11	SWITCH, PUSH (1 KEY)(SUBSONIC)
S501	1-570-079-11	SWITCH, PUSH (2 KEY)(TONE)
S502	1-570-079-11	SWITCH, PUSH (2 KEY)(BASS BOOST)
S801	△.1-554-880-11	SWITCH, PUSH (AC POWER)(1 KEY)(POWER)
S801	△.1-552-246-12	(US)...SWITCH, PUSH (POWER)
S901	1-570-075-11	SWITCH, PUSH (7 KEY) (VIDEO 1,2/TAPE 1,2/CD/TUNER/PHONO)
T801	△.1-448-189-11	(US).....TRANSFORMER, POWER
T801	△.1-448-190-11	(AEP,G-AEP)...TRANSFORMER, POWER

## ACCESSORY & PACKING MATERIAL

Part No.	Description
2-297-403-00	SHEET (LARGE), PROTECTION
3-701-630-00	BAG, POLYETHYLENE
3-760-469-11	MANUAL, INSTRUCTION
4-885-949-01	CUSHION (FRONT), UPPER
4-885-950-01	CUSHION (REAR), UPPER
4-885-951-01	CUSHION (FRONT), LOWER
4-885-952-01	CUSHION (REAR), LOWER
4-908-814-01	INDIVIDUAL CARTON

The components identified by shading and mark △ are critical for safety. Replace only with part number specified.